Realising Democracy Amid Communicative Plenty: A Deliberative Systems Approach

Australian Research Council Discovery Project 2015 (DP150103615)

Research Project Report No.1

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Chief Investigators: John Dryzek, Selen Ercan, Paul Fawcett, Carolyn Hendriks, Michael Jensen

Research Assistants: Sonya Duus, Asha Titus, Wei Si

Contents

Introduction ........................................................................................................................................3
Section 1. Timeline of key CSG events in New South Wales ..................................................4
Section 2. Detailed timeline of CSG events in New South Wales ......................................14
Section 3. Possible CSG case studies in New South Wales ..................................................35
Section 4. Maps related to CSG in New South Wales .........................................................38
Section 5. Digitally-captured article analysis ........................................................................46

List of figures

Figure 4.1: NSW Coal Basins and Coalfields ........................................................................39
Figure 4.2: Australia’s coal seam gas reserves and gas infrastructure ..............................40
Figure 4.3: Coal seam gas wells map .................................................................................41
Figure 4.4: Lock The Gate Member Groups ......................................................................42
Figure 4.5: Petroleum Titles in New South Wales (includes CSG) ..................................43
Figure 4.6: Sydney’s drinking water catchments ................................................................44
Figure 4.7: Lock the Gate’s 2015 Electoral Mining Hotspots .............................................45
Figure 5.1: Top 20 Newspapers reporting on CSG ...............................................................48
Figure 5.2: Article count by year .........................................................................................48
Figure 5.3: SQL schema ........................................................................................................49
Figure 5.4: Top 15 topics reported in CSG articles by year ...............................................51
Figure 5.5: Towns mentioned in CSG media reports ...........................................................52
Introduction

The ARC funded ‘Realising Democracy Amid Communicative Plenty’ project is investigating the debate surrounding coal seam gas (CSG) development in New South Wales from a deliberative systems perspective. The central aim of the research is to examine whether, how, why, and to what effect discourse forms and flows within and between different sites in the new politics of ‘communicative plenty’. The project combines qualitative and digital data to assess different kinds of communicative contributions to a deliberative system. It focusses on six types of communicative sites: empowered bodies; expert and elite taskforces; stakeholder forums and community consultations; community protests and face-to-face networks; mass media; and relevant online spaces (such as Twitter, Facebook, blog posts and websites).

This first research report documents the initial investigations undertaken between mid-March and 1st May 2015, providing relevant background information for the project. Findings from qualitative and quantitative investigations track the development and key moments in the CSG debate in New South Wales from the early 1990s up until the present time.

The first four sections of this report were compiled by research assistant Sonya Duus with assistance from Asha Titus. Section 1 contains a condensed timeline of key CSG events in New South Wales based on internet searches of websites and news articles, and categorised according to ‘empowered’, ‘public’ and ‘industry’ spaces. Section 2 contains a more detailed timeline of key events which is the basis for the condensed timeline. Section 3 contains a table of possible New South Wales case studies listed by coal basin and with descriptions of key characteristics of each project and region. Section 4 is a compilation of maps related to CSG in New South Wales.

The fifth section of this report presents the digitally-captured article analysis pertaining to CSG in New South Wales, undertaken by research assistant Wei Si and chief investigator Michael Jensen. It finds that CSG first appeared in NSW newspapers in the early 1990s. Significant peaks of reporting began in 2008, with the most CSG media coverage occurring in 2011. It also finds that the rate of mentions of key words in the articles changed over time, and that the Australian Financial Review, the Sydney Morning Herald and the Newcastle Herald were the top three reporters on CSG over the period of analysis.
Section 1.

Timeline of key CSG events in New South Wales

(Selected, condensed and categorised from detailed timeline, see section 2)
## Coal seam gas timeline with particular focus on New South Wales

<table>
<thead>
<tr>
<th>Date/month</th>
<th>Industry Developments</th>
<th>Empowered Space (policy/regulation, science, government/bureaucracy)</th>
<th>Public Space (consultation/engagement, activism/protest, industry, media, politics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>Early stages of CSG exploration in NSW</td>
<td></td>
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<tr>
<td>1996</td>
<td>Australia’s first coal seam gas extraction begins at the Dawson Valley project in central Queensland</td>
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<tr>
<td>2001</td>
<td>NSW’s only active CSG project – AGL’s Camden Gas Project - commences production</td>
<td></td>
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<tr>
<td>2002</td>
<td>September</td>
<td>NSW Resource and Conservation Assessment Council releases report on ‘Mineral and Petroleum Resources and Potential’ (NSW Western Regional Assessments)</td>
<td>Conflict between Sydney Gas and the community in the Wyong Shire over proposed gasfield development in Central Coast’s water supply catchment. The project did not end up going ahead</td>
</tr>
<tr>
<td>2005</td>
<td>The issuing of Petroleum Exploration Licences in NSW increases exponentially from this time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>The issuing of Petroleum Exploration Licences in NSW increases exponentially from this time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>January</td>
<td>Josh Fox begins touring the US with his film Gasland</td>
<td></td>
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<tr>
<td>2010</td>
<td>September</td>
<td>AGL accused of dumping contaminated water near Broke in Hunter Valley</td>
<td></td>
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<tr>
<td>2010</td>
<td>5-Oct</td>
<td>Qld Government enforces ban on BTEX chemicals through legislation</td>
<td></td>
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<tr>
<td>2010</td>
<td>October</td>
<td>NSW Farmers Federation calls for moratorium on CSG development</td>
<td></td>
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<tr>
<td>2010</td>
<td>10-Nov</td>
<td>Plans to test drill for CSG in Sydney’s St Peters become public</td>
<td></td>
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<tr>
<td>2010</td>
<td>18-Nov</td>
<td>Launch of the movie Gasland in Australia</td>
<td></td>
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<tr>
<td>2010</td>
<td>Nov/Dec</td>
<td>Formation and launch of Lock The Gate after meetings in NSW and Qld</td>
<td></td>
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<tr>
<td>2010</td>
<td>December</td>
<td>National Water Commission issues a position statement on coal seam gas (CSG) and water issues, driven by concerns about potential risks to water resources, particularly the cumulative effects of multiple projects</td>
<td></td>
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<tr>
<td>Year</td>
<td>Month</td>
<td>Event Description</td>
<td>Notes</td>
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<tr>
<td>2011</td>
<td>February</td>
<td>Two wells at Bentley, north west of Casino were found to be leaking methane</td>
<td>Public forums on the (now defunct?) NSW Coal &amp; Gas Strategy held in Gunnedah, Wollongong, Lithgow and Singleton</td>
</tr>
<tr>
<td>2011</td>
<td>Late Mar</td>
<td>Coalition wins NSW election, with an election campaign that promoted a Strategic Land Use Policy as a solution to growing unrest related to coal and CSG development</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Late Mar - early Apr</td>
<td></td>
<td>Protestors, including Drew Hutton founder of Lock The Gate, barricade gas pipe development work at Tara</td>
</tr>
<tr>
<td>2011</td>
<td>23-May</td>
<td>NSW Gov’t places 60 day moratorium on new coal, petroleum and CSG exploration licences</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>5-Aug</td>
<td>Launch of NSW Parliamentary Inquiry on CSG (report released 1st May 2012)</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>19-Aug</td>
<td>Public meeting in St Peters, with Dart executives hounded by 200 community members</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>5-Sep</td>
<td>The Australian Petroleum Production &amp; Exploration Association launches ‘We Want CSG’ campaign, aimed at highlighting the investment, jobs, environmental benefits and opportunities from the industry</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>17-Sep</td>
<td>Santos completes acquisition of Eastern Star Gas</td>
<td></td>
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<tr>
<td>2011</td>
<td>18-Sep</td>
<td>Several hundred people rally at St Peters/Newtown in opposition to CSG</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>13-Oct</td>
<td>Alan Jones hosts forum in Gunnedah about threats of coal and CSG to agricultural land, with 500 attending</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>16-Oct</td>
<td>Thousands rally against CSG around Australia, including around 400 people in Martin Place Sydney</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Late Oct</td>
<td>Farmers blockade and deny access to Spring Ridge (Liverpool Plains) by Santos to develop new pilot test site</td>
<td></td>
</tr>
</tbody>
</table>
### Section 1: Timeline of key SCG events in New South Wales

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>21-Nov</td>
<td>Prime Minister announced the National Partnership Agreement for the Regulation of Coal Seam Gas (NPACSG) – “partly a reward for Tony Windsor”</td>
</tr>
<tr>
<td>2011</td>
<td>22-Nov</td>
<td>20,000 signature anti-CSG petition handed over to O’Farrell’s government in Sydney</td>
</tr>
<tr>
<td>2011</td>
<td>30-Nov</td>
<td>Senate Standing Committee tables interim report on the impact of CSG on the Murray Darling Basin, recommending a moratorium on CSG project in those parts of MDB overlying GAB &amp; other provisions</td>
</tr>
<tr>
<td>2011</td>
<td>Early Dec</td>
<td>Barrington Gloucester Stroud Preservation Alliance mounts a 12 day blockade to prevent CSG drilling rig entering a lane</td>
</tr>
<tr>
<td>2011</td>
<td>December</td>
<td>NSW Gov’t extents CSG fracking moratorium until April 2012</td>
</tr>
<tr>
<td>2011</td>
<td>13-Dec</td>
<td>Lismore City Council places moratorium on all CSG activities on council land</td>
</tr>
<tr>
<td>2012</td>
<td>13-Jan</td>
<td>An AGL led meeting to address water concerns in Gloucester came to halt when community representatives staged a walkout. This story and video of event was covered on Prime7</td>
</tr>
<tr>
<td>2012</td>
<td>21-Jan</td>
<td>Widely watched 'hat protest' in Kerry Valley, south east Qld, culminating after 10 day blockade</td>
</tr>
<tr>
<td>2012</td>
<td>28-Feb</td>
<td>Qld Green Senator Larissa Waters proposes Bill to give Commonwealth power to veto CSG projects that are likely to harm water</td>
</tr>
<tr>
<td>2012</td>
<td>March</td>
<td>GetUp! campaign to gather 10,000 online signatures to present to the UNESCO representatives in Australia investigating the impacts of dredging in Gladstone for the CSG to LNG export facilities on the Great Barrier Reef World Heritage Area</td>
</tr>
<tr>
<td>2012</td>
<td>1-Mar</td>
<td>Public meeting at Lismore Workers Club about the CSG industry and its impact on local food production, tourism and future land use. About 700 attended the meeting. Organised by North Coast anti coal-seam gas groups.</td>
</tr>
<tr>
<td>2012</td>
<td>4-Mar</td>
<td>Landline program ‘Anxious Harvest’ focussing on farmers’ concerns over CSG</td>
</tr>
<tr>
<td>2012</td>
<td>6-Mar</td>
<td>NSW Government formally bans BTEX compounds in CSG drilling and fracking</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
<td>Notes</td>
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</tr>
<tr>
<td>2012</td>
<td>Timeline of key SCG events in New South Wales</td>
<td></td>
</tr>
<tr>
<td>2012 6-Mar</td>
<td>NSW Gov’t releases draft Strategic Regional Land Use Plans for the New England North West and Upper Hunter regions; NSW Draft Aquifer interference policy; NSW Draft Code of Practice for Coal Seam Gas Exploration; community consultation guidelines; guidelines for Agricultural Impact Statements</td>
<td></td>
</tr>
<tr>
<td>2012 9-Mar</td>
<td>COAG agrees to National Partnership Agreement on Coal Seam Gas and Large Coal Mining Development (see original announcement in Nov 2011)</td>
<td>Protest march to NSW Parliament after the Greens motion calling for a moratorium on all CSG projects in the state was voted down</td>
</tr>
<tr>
<td>2012 15-Mar</td>
<td>Protest march to NSW Parliament after the Greens motion calling for a moratorium on all CSG projects in the state was voted down</td>
<td>National Beyond Coal and Gas Gathering, held in Louisa Creek Qld</td>
</tr>
<tr>
<td>2012 18-20 March</td>
<td>Activist workshops at the Workers Club in Lismore to support community action against coal seam gas mining in the Northern Rivers region</td>
<td></td>
</tr>
<tr>
<td>2012 March-April</td>
<td>Activist workshops at the Workers Club in Lismore to support community action against coal seam gas mining in the Northern Rivers region</td>
<td></td>
</tr>
<tr>
<td>2012 1-Apr</td>
<td>Activist workshops at the Workers Club in Lismore to support community action against coal seam gas mining in the Northern Rivers region</td>
<td>Stop CSG Sydney Monthly Community Meeting at St. Peters Hall</td>
</tr>
<tr>
<td>2012 1-May</td>
<td>Release of NSW Parliamentary Inquiry Report on CSG (inquiry launched 5th Aug 2011)</td>
<td>Protect Our Land Our Water rally to the steps of NSW Parliament., organised by NSW Farmers Federation and Lock the Gate to register protest against the lack of protections for prime agricultural land in the Draft Strategic Regional Land Use Policy</td>
</tr>
<tr>
<td>2012 1-May</td>
<td>Protect Our Land Our Water rally to the steps of NSW Parliament., organised by NSW Farmers Federation and Lock the Gate to register protest against the lack of protections for prime agricultural land in the Draft Strategic Regional Land Use Policy</td>
<td>Protect Our Land Our Water rally to the steps of NSW Parliament., organised by NSW Farmers Federation and Lock the Gate to register protest against the lack of protections for prime agricultural land in the Draft Strategic Regional Land Use Policy</td>
</tr>
<tr>
<td>2012 11-May</td>
<td>Dart abandons plans to drill in Sydney’s inner west (St Peters)</td>
<td>Protect Our Land Our Water rally to the steps of NSW Parliament., organised by NSW Farmers Federation and Lock the Gate to register protest against the lack of protections for prime agricultural land in the Draft Strategic Regional Land Use Policy</td>
</tr>
<tr>
<td>2012 Mid 2012</td>
<td>Lock the Gate employs social media manager, who among other things conducts workshops with landholders in various parts of Australia</td>
<td></td>
</tr>
<tr>
<td>2012 July</td>
<td>Release of Namoi Catchment Water Study, which was undertaken in response to community concerns over the impact of CSG on water resources. The study found however, that agriculture and CSG could co-exist in the region (mostly Gunnedah Basin)</td>
<td></td>
</tr>
<tr>
<td>2012 24-Aug</td>
<td>Victorian government imposes moratorium on CSG exploration and fracking</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Month</td>
<td>Event Description</td>
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<tr>
<td>2012</td>
<td>August</td>
<td>Lismore Council runs referendum on CSG, finding 88% residents opposed</td>
</tr>
<tr>
<td>2012</td>
<td>8-Sep</td>
<td>Gov’t releases Strategic Regional Land Use Policy, a key plank of which is the Aquifer Interference Policy</td>
</tr>
<tr>
<td>2012</td>
<td>21-Sep</td>
<td>3,000 people gather in Bulli, in Illawarra to spell out human sign ‘Protect H20, Stop CSG!’</td>
</tr>
<tr>
<td>2012</td>
<td>13-Oct</td>
<td>Thousands gather in Sydney Park to form the human sign ‘Stop Coal Seam Gas’</td>
</tr>
<tr>
<td>2012</td>
<td>18-Oct</td>
<td>A reported 3,000 people rally in Murwillumbah in northern NSW, and around 1,000 in Sydney – forming a human sign ‘Stop CSG’</td>
</tr>
<tr>
<td>2012</td>
<td>27-28 Oct</td>
<td>Protest- Groundswell Gloucester”, inaugural Coal and CSG Community Conference</td>
</tr>
<tr>
<td>2012</td>
<td>November</td>
<td>Establishment of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development</td>
</tr>
<tr>
<td>2012</td>
<td>12-Nov</td>
<td>Public seminar in Lismore by Southern Cross University researchers on fugitive emissions on Darling Downs (Qld) – in essence their findings suggested that emissions were much higher than commonly thought</td>
</tr>
<tr>
<td>2013</td>
<td>19-Feb</td>
<td>Changes announced on how CSG industry is regulated in NSW, including creation of the Office of Coal Seam Gas within NSW Trade and Investment and the announcement of an independent review</td>
</tr>
<tr>
<td>2013</td>
<td>27-Feb</td>
<td>1st peer-reviewed publication from Southern Cross Uni Researchers on CSG fugitive emissions</td>
</tr>
<tr>
<td>2013</td>
<td>11-Mar</td>
<td>Federal Environment Minister Burke gives green light to Gloucester CSG project</td>
</tr>
<tr>
<td>2013</td>
<td>18-20 Mar</td>
<td>National Beyond Coal and Gas Gathering, held in Kurri Kurri (Hunter Valley) NSW</td>
</tr>
<tr>
<td>2013</td>
<td>1-Apr</td>
<td>Four Corners on CSG controversies, including interview with Simone Marsh – a whistleblower who reports on significant flaws in due approvals process in Qld</td>
</tr>
<tr>
<td>Year</td>
<td>Month</td>
<td>Event Description</td>
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<tr>
<td>2013</td>
<td>31-May</td>
<td>COAG Energy Council releases “National Harmonised Regulatory Framework for Natural Gas from Coal Seams”</td>
</tr>
<tr>
<td>2013</td>
<td>20-Jun</td>
<td>Federal senate passes ‘water trigger amendment’ bill, introduced by Tony Windsor, giving Commonwealth responsibility to ensure there are no impacts on water systems when considering CSG or coal mining applications</td>
</tr>
<tr>
<td>2013</td>
<td>30-Jul</td>
<td>Release of Initial findings of NSW Chief Scientist &amp; Engineer’s (Professor Mary O’Kane) independent review into coal seam gas</td>
</tr>
<tr>
<td>2013</td>
<td>17-Aug</td>
<td>Lock The Gate launches two new documentaries about the impacts of CSG and coal mining on people, land and water– ‘Fractured Country: An Unconventional Invasion’ and ‘Undermining Australia: Coal v’s Communities’</td>
</tr>
<tr>
<td>2013</td>
<td>October</td>
<td>Government brings into force exclusion zones for CSG – prohibiting new CSG exploration and development in existing residential areas and within 2km of these areas, as part of its Strategic Regional Land Use Policy</td>
</tr>
<tr>
<td>2013</td>
<td>13-Nov</td>
<td>NSW Gov’t promises moratorium on CSG extraction in ‘Special Areas’ of Sydney’s drinking water catchment land until release of Chief Scientist’s report</td>
</tr>
<tr>
<td>2013</td>
<td>18-Dec</td>
<td>National day of climate action protests – which included anti-CSG groups</td>
</tr>
<tr>
<td>2013</td>
<td>18-Dec</td>
<td>‘Aussies against Fracking’ music concert which included big names</td>
</tr>
<tr>
<td>2014</td>
<td>January</td>
<td>NSW Government extends exclusion zones for CSG (see Oct 2013) – so that it covers future residential growth areas, 7 rural villages and the equine and viticulture clusters in the Upper Hunter</td>
</tr>
<tr>
<td>2014</td>
<td>15-Jan</td>
<td>Santos fined $52,000 for pollution breach related to 2011 spill when the project was owned by Eastern Star Gas</td>
</tr>
<tr>
<td>2014</td>
<td>February</td>
<td>Release of report by NSW Valuer General ‘Study of the impact of the Coal Seam Gas industry on land values in NSW’</td>
</tr>
<tr>
<td>Year</td>
<td>Month</td>
<td>Event Description</td>
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</tr>
<tr>
<td>2014</td>
<td>Feb-May</td>
<td>Close to 3 month-long blockade at Bentley (Northern Rivers) against Metgasco</td>
</tr>
<tr>
<td>2014</td>
<td>18-Feb</td>
<td>Santos fined $1,500 for polluting water, when elevated levels of uranium found at high levels (unrelated to earlier spill it seems), after self-reporting</td>
</tr>
<tr>
<td>2014</td>
<td>20 Feb-9 March</td>
<td>Tour by John Fenton, Wyoming farmer warning Australians about the impacts of CSG (National (Qld, NSW, Vic)</td>
</tr>
<tr>
<td>2014</td>
<td>21-Feb</td>
<td>Santos and NSW Gov’t sign memorandum of understanding over the Narrabri Gas Project to supply NSW homes and businesses</td>
</tr>
<tr>
<td>2014</td>
<td>25-Mar</td>
<td>Landholder-organised forum on the scientific and legal aspects of CSG, held at NSW Parliament house in Sydney (criticised by industry for being biased)</td>
</tr>
<tr>
<td>2014</td>
<td>26-Mar</td>
<td>NSW Government announces a 6-month freeze on NSW Petroleum Exploration Applications</td>
</tr>
<tr>
<td>2014</td>
<td>28-Mar</td>
<td>‘Principles of Land Access’ signed between Santos, AGL, NSW Farmers, Cotton Australia and the NSW Irrigators Council at NSW Parliament House – agreement that CSG companies will not operate on private land without the voluntary consent of the landholder</td>
</tr>
<tr>
<td>2014</td>
<td>April</td>
<td>Orange City Council passes motion to ban all forms of CSG exploration and mining in Centroc (voluntary collaboration of Central NSW councils)</td>
</tr>
<tr>
<td>2014</td>
<td>April</td>
<td>Major protests in Pilliga forest, including concert and direct action by farmers</td>
</tr>
<tr>
<td>2014</td>
<td>15-May</td>
<td>Metgasco licence to drill at Bentley suspended, with findings of inadequate community consultation and company referred to ICAC</td>
</tr>
<tr>
<td>2014</td>
<td>16-May</td>
<td>A group of activists organised by The Wilderness Society pose as shareholders to force a vote on the Narrabri Gas Project at the Santos AGM, but which fails</td>
</tr>
<tr>
<td>2014</td>
<td>15-Jun</td>
<td>CSIRO and Federal Environment Dep’t release report on fugitive emission, finding very low emissions, and much lower than in the US</td>
</tr>
<tr>
<td>Year</td>
<td>Date</td>
<td>Event Description</td>
</tr>
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</tr>
<tr>
<td>2014</td>
<td>20-Jun</td>
<td>Griffith City Council lodge motion at meeting of Australian Local Government Association local councils to ban CSG on farming land, but it is rejected</td>
</tr>
<tr>
<td>2014</td>
<td>6-Aug</td>
<td>AGL’s Gloucester CSG pilot program approved</td>
</tr>
<tr>
<td>2014</td>
<td>28-Aug</td>
<td>Around this time NSW Gov't changes planning laws to enable fracking without full EIS - this then enabled approval of the Gloucester pilot program because of some technical project details</td>
</tr>
<tr>
<td>2014</td>
<td>6-Aug</td>
<td>Large protest gathers at Gloucester and protestors plan permanent camp, following other Gloucester protests earlier in the month</td>
</tr>
<tr>
<td>2014</td>
<td>25-Sep</td>
<td>NSW Government adds 12-month freeze on NSW Petroleum Exploration Applications</td>
</tr>
<tr>
<td>2014</td>
<td>23-Oct</td>
<td>Opposition group from Gloucester meets with Minister, and protestors demonstrate outside AGL AGM in Sydney</td>
</tr>
<tr>
<td>2014</td>
<td>24-Oct</td>
<td>National Beyond Coal and Gas Gathering, held in south east Qld</td>
</tr>
<tr>
<td>2014</td>
<td>13-Nov</td>
<td>Release of State Government’s NSW Gas Plan</td>
</tr>
<tr>
<td>2014</td>
<td>18-Nov</td>
<td>2nd peer-reviewed publication from Southern Cross Uni Researchers on CSG fugitive emissions</td>
</tr>
<tr>
<td>2014</td>
<td>20-Nov</td>
<td>Passage of legislation to extinguish 16 Petroleum Exploration Licences Applications (PELs) in NSW, covering 43% of state as part of NSW Gas Plan</td>
</tr>
<tr>
<td>2015</td>
<td>January</td>
<td>First export of CSG LNG from Gladstone (Qld)</td>
</tr>
<tr>
<td>2015</td>
<td>27-Jan</td>
<td>AGL suspends operations at Gloucester after BTEX chemicals found</td>
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<td>2-Mar</td>
<td>NSW Labor Opposition promises moratorium on CSG in the State and permanent ban in Northern NSW if they win election</td>
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<tr>
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<td>5-Mar</td>
<td>Greens senator Larissa Waters refers Landholders’ Right to Refuse (Gas and Coal) Bill 2015 for inquiry and report</td>
</tr>
<tr>
<td>2015</td>
<td>6-Mar</td>
<td>NSW Government cancels CSG licence over Sydney (PEL 463)</td>
</tr>
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<td>2015</td>
<td>7-Mar</td>
<td>Premiere screening of Frackman The Movie at Byron Bay Movie Festival</td>
</tr>
<tr>
<td>2015</td>
<td>9-Mar</td>
<td>NSW Gov't cancels PELs for Central Coast</td>
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<tr>
<td>Year</td>
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<td>Event</td>
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<tr>
<td>2015</td>
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<td>NSW Gov’t cancels three CSG licences in Sydney’s water catchment (PELs 442, 444, 454 – Port Kembla, Darkes Forest, Oakland)</td>
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<td>NSW election result: large swings against Nationals towards Greens attributed to CSG controversy in Northern Rivers area</td>
</tr>
<tr>
<td>2015</td>
<td>13-Apr</td>
<td>Australian Energy Market Operator dramatically downgrades estimate of future gas demand on the east coast, undermining previous arguments about the domestic market necessity to develop coal seam gas reserves in NSW</td>
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<td>2015</td>
<td>14-Apr</td>
<td>Federal Government’s Domestic Gas Strategy released following the Energy White Paper - includes principles to protect farmers rights and water resources</td>
</tr>
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<td>‘Longest ever’ CSG highway protest – on the Newell (from Dubbo to the Qld border) and Pacific Highways. Some 2,500km were believed to be covered.</td>
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<td>Metgasco wins Supreme Court challenge to resume gas drilling at Bentley, set to resume around July</td>
</tr>
</tbody>
</table>
Section 2.

Detailed timeline of CSG events in New South Wales
CSG timeline

Topic tags: Activism/protest; politics; policy/regulation; government/bureaucracy; consultation/engagement; environment/spills/leaks; industry; media; science/research; law/legal

Additional archival links:
- Timeline of spills and accidents from anti-CSG academic and activist:
- Anti-CSG website with archived news:
  - http://coalseamgasnews.org/
- NSW Government Media and events page, including social media, and media releases which can be filtered for CSG:

2015

- **NSW, May 2015**: NSW Government announces the establishment of a ‘Community Benefits Fund’ to enable communities in which gas is produced to directly benefit, and seeks public submissions for how it should be set up
  - policy/regulation;

- **National, 7-9 May 2015**: ‘Progress 2015’ – a big conference (1000+ participants) for activists, including content related to CSG and fracking, but also possibly interesting for the range of ideas and people it brings together
  - Activism/protest
    - Website: http://progress2015.org.au/

- **NSW, 24th April 2015**: Metgasco wins Supreme Court challenge to resume gas drilling at Bentley, set to resume around July
  - industry; law/legal

- **NSW, 19th April 2015**: ‘Longest ever’ CSG highway protest – on the Newell (from Dubbo to the Qld border) and Pacific Highways. Some 2,500km were believed to be covered.
  - Activism/protest

- **National, 14th April 2015**: ‘Frackman’ launches divestment campaign aimed at removing money from banks and super funds
  - Activism/protest
    - Campaign website: http://www.frackmandivest.com/

- **National, 14th April 2015**: Federal Government’s Domestic Gas Strategy released following the Energy White Paper
  - policy/regulation; government/bureaucracy

- **National, 13th April 2015**: Australian Energy Market Operator dramatically downgrades estimate of future gas demand on the east coast, undermining previous arguments about the domestic market necessity to develop coal seam gas reserves in New South Wales
  - Industry

- **National, 31st March 2015**: Launch of Senate Committee inquiry, investigating environmental NGOs on the Register of Environmental Organisations. Apparently aimed at removing tax-deductibility status from NGOs that are engaged with political rather than purely practical (eg. Planting trees) activities.
  - Politics; government/bureaucracy

- **NSW, 28th March 2015**: NSW State election result, including the Greens taking Ballina previously held by the Nationals, and coming very close in Lismore – widely stated to be due to CSG concerns in the area. Also the Liberal’s loss of Campbelltown to Labor may have something to do with community opposition to the only actively producing gasfield in NSW. There were also big swings against sitting Nationals in Barwon (Pilliga area), which probably at least can be party attributed to CSG opposition
  - politics;

- **National/Qld, 27th March 2015**: Senate Select Committee looking at ‘Certain Aspects of Qld Govt Administration related to C’wealth Govt Affairs’ recommending several strong points on CSG, including a Royal Commission and a moratorium on new CSG approvals
  - Politics; government/bureaucracy
• NSW, 21st March 2015: ‘Frackman’ Dayne Pratzky features in SMH’s Good Weekend
  o Activism/protest, media

• NSW, 19th March 2015: Opposition leader Luke Foley promises a ban on CSG in the Pilliga region if Labor wins government:
  o politics;

• NSW, March: NSW Government buys back CSG licenses
  - March 17th 2015: NSW Government cancels three CSG licences in Sydney’s water catchment (PELs 442, 444, 454 – Port Kembla, Darkes Forest, Oakland)
    o politics; policy/regulation; industry
  - March 9th 2015: PELs for Central Coast bought back
    o politics; policy/regulation; industry
  - March 6th 2015: NSW Government cancels CSG licence over Sydney (PEL 463)
    o politics; policy/regulation; industry
      ▪ Stop CSG Sydney coverage: http://stopcsgsydney.org.au/

• National, 15th March 2015: Australian Productivity Commission releases report ‘Examining Barriers to More Efficient Gas Markets’
  o government/bureaucracy

• NSW, 8th March 2015: Former NSW governor Marie Bash speaks out about coal mining on farming land
  o politics; Activism/protest
- Gasfield Free Northern Rivers facebook page: [https://www.facebook.com/CsgFreeNorthernRivers/posts/609557322478499](https://www.facebook.com/CsgFreeNorthernRivers/posts/609557322478499)

- **National, 7th March 2015**: Premiere screening of *Frackman The Movie* at Byron Bay Movie Festival
  - **Activism/protest**
    - ABC article on the movie’s NSW tour: [http://www.abc.net.au/local/stories/2015/03/02/4189608.htm?site=northtas](http://www.abc.net.au/local/stories/2015/03/02/4189608.htm?site=northtas)

- **National, 5th March 2015**: Greens senator Larissa Waters introduces ‘Landholders’ Right to Refuse (Coal Seam Gas) Bill 2015
  - **politics; policy/regulation**

- **NSW, 2nd March 2015**: Labor opposition promises moratorium on CSG across the State and permanent ban in Northern NSW
  - **politics; policy/regulation**

- **National/Qld, Feb-March 2015**: Senator Glen Lazarus calls for Royal Commission into CSG sector, to establish a Resources Ombudsman, and launches a petition
  - **politics; policy/regulation**
    - Glen Lazarus launches petition: [https://www.facebook.com/ChamberlainLazarus/posts/343360872537197](https://www.facebook.com/ChamberlainLazarus/posts/343360872537197)
    - Glen Lazarus’ Facebook page: [https://www.facebook.com/ChamberlainLazarus/posts/348905718649379](https://www.facebook.com/ChamberlainLazarus/posts/348905718649379)
    - Lock the Gate reports: [http://www.lockthegate.org.au/senator_glenn_lazarus_joins_the_fight_against_csg_at_darling_downs_event](http://www.lockthegate.org.au/senator_glenn_lazarus_joins_the_fight_against_csg_at_darling_downs_event)

- **NSW, 18th February 2015**: AGL announces major internal review of its CSG business, following BTEX chemical found in flowback water in the previous month
  - **Industry**

- **Vic, Jan 2015**: CSG moratorium extended to 2016
  - **politics; policy/regulation**

- **NSW, 27th Jan 2015**: AGL suspends operations at Gloucester (Waukivory Pilot Project) after BTEX chemicals found in water
  - **Industry**: policy/regulation; environment/spills/leaks

- **Qld, Jan 2015**: First export of CSG LNG from Gladstone
  - **industry**

**2014**

- **NSW, 20th Nov 2014**: Passage of legislation to extinguish 16 Petroleum Exploration Licences Applications (PELAs) in NSW, covering 43% of state as part of NSW Gas Plan
  - **policy/regulation**

- **NSW/National, 18th Nov 2014**: 2nd Peer-review publication of SCU research on CSG emissions
  - **Science**

- **NSW, 13th Nov 2014**: Release of State Government’s NSW Gas Plan
  - **policy/regulation**
Section 2: Detailed timeline of SCG events in New South Wales


- **Qld, 5th November 2014**: Douglas Shire Council bans CSG in council area (despite no CSG extraction planned in area)
  - **policy/regulation; government/bureaucracy; Activism/protest**
    - ABC reports: [http://www.abc.net.au/local/stories/2014/11/05/4122003.htm](http://www.abc.net.au/local/stories/2014/11/05/4122003.htm)

- **Vic, Oct 2014**: Moyne Shire Council attempts to unite Victorian councils to take a stand against CSG
  - **policy/regulation; government/bureaucracy; Activism/protest**

- **National, 24-27th Oct 2014**: National Beyond Coal and Gas Gathering, held in SE Qld
  - **Activism/protest**

- **NSW, 23rd Oct 2014**: Opposition group from Gloucester meets with Minister, and protestors demonstrate outside AGL AGM in Sydney
  - **Activism/protest**

  - **Science; politics; policy/regulation**

- **NSW, 25th Sept 2014**: NSW Government adds 12-month freeze on NSW Petroleum Exploration Applications
  - **policy/regulation;**

- **NSW, 28th Aug 2014**: Large protest gathers at Gloucester and protestors plan permanent camp
  - **Activism/protest**

- **NSW, 16th Aug 2014**: Protest of Gloucester residents and their supporters against AGL project
Section 2: Detailed timeline of SCG events in New South Wales

- Activism/protest

- **NSW, 7th Aug 2014**: Protest of Gloucester residents and supporters against AGL project
  - Activism/protest

- **NSW, 6th Aug 2014**: AGL’s Gloucester CSG pilot program approved
  - policy/regulation; industry

- **NSW, Jul-Aug 2014**: NSW Gov’t amends State Environment Planning Policy to allow fracking without full EIS (presumably in certain circumstances?), connected to approval of AGL’s project
  - policy/regulation; government/bureaucracy

- **NSW, 20th June 2014**: Griffith City Council lodge motion at meeting of Australian Local Government Association local councils to ban CSG on farming land, but it is rejected
  - policy/regulation; government/bureaucracy; Activism/protest

- **NSW, 15th June 2014**: CSIRO and Federal Environment Dep’t release report on fugitive emission, finding very low emissions, and much lower than in the US
  - Science

- **NSW, 16th May 2014**: A group of activists organised by The Wilderness Society pose as shareholders to force a vote on the Narrabri Gas Project at the Santos AGM, which fails
  - Activism/protest

- **NSW, 15th May 2014**: Metgasco licence to drill at Bentley suspended, with findings of inadequate community consultation and company referred to ICAC
  - policy/regulation; government/bureaucracy
Section 2: Detailed timeline of SCG events in New South Wales


- **NSW, Feb-May 2014**: Close to 3 month-long blockade at Bentley against Metgasco
  - **Activism/protest**

- **NSW, April 2014**: Orange City Council passes motion to ban all forms of CSG exploration and mining in Centroc (voluntary collaboration of Central NSW councils)
  - **policy/regulation; government/bureaucracy; Activism/protest**

- **NSW, April 2014**: Major protests in Pilliga forest, including concert and direct action by farmers
  - **Activism/protest**

- **NSW, 28th March 2014**: ‘Principles of Land Access’ signed between Santos, AGL, NSW Farmers, Cotton Australia and the NSW Irrigators Council at NSW Parliament House – agreement that CSG companies will not operate on private land without the voluntary consent of the landholder
  - **consultation/engagement; industry; Activism/protest**

- **National (Qld, NSW, Vic), 20th Feb – 9th March 2014**: Tour by John Fenton, Wyoming farmer warning Australians about the impacts of CSG
  - **Activism/protest**
  - Tour blog: [http://fentontour.com/](http://fentontour.com/)

- **NSW, 26th March 2014**: NSW Government announces a 6-month freeze on NSW Petroleum Exploration Applications
  - **politics; policy/regulation**

- **NSW, 25th March 2014**: Landholder-organised forum on the scientific and legal aspects of CSG, held at NSW Parliament house in Sydney (criticised by industry for being biased)
  - **science; consultation/engagement**
Section 2: Detailed timeline of SCG events in New South Wales


- **National, 18th March 2015**: The Australia Institute releases its report ‘Fracking the Future’ which concludes much more work need to be done to assess the health and environment risks of CSG
  - **science/research**: Activism/protest
  - **TAI webpage**: [http://www.tai.org.au/content/fracking-future](http://www.tai.org.au/content/fracking-future)

- **NSW, 21st Feb 2014**: Santos and NSW Gov’t sign memorandum of understanding over the Narrabri Gas Project to supply NSW homes and businesses
  - **government/bureaucracy**: Industry

- **NSW, 18th February 2014**: Santos fined $1500 for polluting water, when elevated levels of uranium found at high levels (unrelated to earlier spill it seems), after self-reporting
  - **government/bureaucracy**: Industry

- **NSW, February 2014**: Release of report by NSW Valuer General ‘Study of the impact of the Coal Seam Gas industry on land values in NSW’
  - **government/bureaucracy**: Industry

- **NSW, 15th January 2014**: Santos fined $52,000 for pollution breach related to 2011 spill when the project was owned by Eastern Star Gas
  - **government/bureaucracy**: Industry

- **NSW, Jan 2014**: Government extends exclusion zones for CSG (see Oct 2013) – so that it covers future residential growth areas, 7 rural villages and the equine and viticulture clusters in the Upper Hunter
  - **policy/regulation**: Industry
2013

• **NSW, 18\textsuperscript{th} Dec 2013**: Santos faces sentencing over 2011 spill in Pilliga
  - **policy/regulation; government/bureaucracy; industry; environment/spills/leaks**

• **NSW, 18\textsuperscript{th} Dec 2013**: National day of climate action protests – which included anti-CSG groups
  - **Activism/protest**

• **NSW, 18\textsuperscript{th} Dec 2013**: ‘Aussies against Fracking’ music concert which included big names
  - **Activism/protest**
    - Organisers’ media release: [http://aussiesagainstfracking.org/media-releases/4581033691](http://aussiesagainstfracking.org/media-releases/4581033691)

• **NSW, 13\textsuperscript{rd} Nov 2013**: NSW Gov’t promises moratorium on CSG extraction in ‘Special Areas’ of Sydney’s drinking water catchment land until release of Chief Scientist’s report
  - **politics; policy/regulation**

• **NSW, Oct 2013**: Government brings into force exclusion zones for CSG – prohibiting new CSG exploration and development in existing residential areas and within 2km of these areas, as part of its Strategic Regional Land Use Policy
  - **policy/regulation**

• **National, 17\textsuperscript{th} Aug 2013**: Lock The Gate launches two new documentaries about the impacts of CSG and coal mining on people, land and water– ‘Fractured Country: An Unconventional Invasion’ and ‘Undermining Australia: Coal v’s Communities’
  - **Activism/protest; media**

• **NSW, 30\textsuperscript{th} July 2013**: Release of Initial findings of NSW Chief Scientist & Engineer’s (Professor Mary O’Kane) independent review into coal seam gas
  - **Science; politics; policy/regulation**

• **National, 20\textsuperscript{th} June 2013**: Federal senate passes ‘water trigger amendment’ bill, introduced by Tony Windsor, giving Commonwealth responsibility to ensure there are no impacts on water systems when considering CSG or coal mining applications
  - **policy/regulation**
Section 2: Detailed timeline of SCG events in New South Wales

- **NSW, June 2013**: NSW Government decides to prosecute Santos for spill contamination
  - politics; policy/ regulation

- **National, 31st May 2013**: COAG Energy Council releases “National Harmonised Regulatory Framework for Natural Gas from Coal Seams”
  - policy/regulation; government/bureaucracy

- **National, 18-20th Mar 2013**: National Beyond Coal and Gas Gathering, held in Kurri Kurri NSW
  - Activism/protest

- **National, 1st April 2013**: Four Corners on CSG controversies, including interview with Simone Marsh – a whistleblower who reports on significant flaws in due approvals process in Qld
  - Media
  - Four Corners website: [http://www.abc.net.au/4corners/stories/2013/04/01/3725150.htm](http://www.abc.net.au/4corners/stories/2013/04/01/3725150.htm)
  - More detail in this ABC articles:

- **NSW, 11th March 2013**: Federal Environment Minister Burke gives green light to Gloucester CSG project
  - policy/regulation; government/bureaucracy
  - Lateline interview with Rob Oakeshott who is not happy with decision: [http://www.abc.net.au/lateline/content/2013/s3688122.htm](http://www.abc.net.au/lateline/content/2013/s3688122.htm)

- **NSW/National, 27th Feb 2013**: 1st peer-review publication of SCU research on CSG emissions
  - Science
  - Journal website: [http://pubs.acs.org/doi/abs/10.1021/es304538g](http://pubs.acs.org/doi/abs/10.1021/es304538g)

- **NSW, 19th Feb 2013**: Changes announced on how CSG industry is regulated in NSW, including creation of the Office of Coal Seam Gas within NSW Trade and Investment and the announcement of an independent review
  - policy/regulation; government/bureaucracy

2012

- **National, November 2012**: Establishment of the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development
Section 2: Detailed timeline of SCG events in New South Wales

- **NSW, 12th November 2012**: Public seminar by Southern Cross University researchers on fugitive emissions on Darling Downs (Qld) – in essence their findings suggested that emissions were much higher than commonly thought
  - **Science**

- **NSW, October 27-28th 2012**: “Groundswell Gloucester”, inaugural Coal and CSG Community Conference
  - **Activism/protest**
    - Photos: [https://www.flickr.com/photos/lockthegatealliance/sets/72157631861586102/](https://www.flickr.com/photos/lockthegatealliance/sets/72157631861586102/)

- **NSW, 18th Oct 2012**: A reported 3,000 people rally in Murriimumbah in northern NSW, and around 1000 in Sydney– forming a human sign “Stop CSG”
  - **Activism/protest**

- **NSW, 13th Oct 2012**: Thousands gather in Sydney Park to form the human sign ‘Stop Coal Seam Gas’
  - **Activism/protest**
    - Marrickville Greens media release: [https://marrickvillegreens.wordpress.com/2012/10/19/st-peters-spells-out-no-csg-for-sydney/](https://marrickvillegreens.wordpress.com/2012/10/19/st-peters-spells-out-no-csg-for-sydney/)

- **NSW, 21st September 2012**: 3,000 people gather in Bulli, in Illawarra to spell out human sign ‘Protect H2O, Stop CSG!’
  - **Activism/protest**

- **NSW, 11th September 2012**: Gov’t releases Strategic Regional Land Use Policy, a key plank of which is the Aquifer Interference Policy
  - **policy/regulation**

- **NSW, 8th September 2012**: Lismore councils runs referendum on CSG, finding 88% residents opposed
  - **government/bureaucracy; Activism/protest**

- **Vic, Aug 2012**: Victorian government imposes moratorium on CSG exploration and fracking
  - **politics; policy/regulation**
Section 2: Detailed timeline of SCG events in New South Wales

- **NSW, 4th August 2012:** Gunnedah Health Impact Assessment Forum, organised by North West Alliance to launch the community-led initiative

- **NSW, August 2012:** Fullerton Cove (just north of Newcastle) 9 day blockade
  - **Activism/protest**
  - Protest video: [https://www.youtube.com/watch?v=5LjnVXmDII](https://www.youtube.com/watch?v=5LjnVXmDII)

- **National, 18-20th Mar 2012:** National Beyond Coal and Gas Gathering, held in Louisa Creek Qld
  - **Activism/protest**

- **NSW, July 2012:** Release of Namoi Catchment Water Study, which was undertaken in response to community concerns over the impact of CSG on water resources. The study found however, that agriculture and CSG could co-exist in the region (mostly Gunnedah Basin)
  - **Science**
  - Industry emphasises claims that CSG extraction not harmful:
  - At least some use of the report by opposition groups:

- **National, mid-2012:** Lock the Gate employs social media manager, who among other things conducts workshops with landholders in various parts of Australia
  - **Activism/protest**
  - Asha knows more about this

- **NSW, 12th May 2012:** Around 7,000 people attend an anti-CSG rally in Lismore
  - **Activism/protest**

- **NSW, 11th May 2012:** Dart abandons plans to drill in Sydney’s inner west (St Peters)
  - **industry**

- **NSW, 1st May 2012:** Protect Our Land Our Water (#polow) rally in Martin Place, to the steps of NSW Parliament, organised by NSW Farmers Federation and Lock the Gate to register protest against the lack of protections for prime agricultural land in the Draft Strategic Regional Land Use Policy. People were urged to make submissions to the draft Land Use policy
  - **Activism/protest**
  - YouTube footage: [https://www.youtube.com/watch?v=pKfbY7TdqLQ](https://www.youtube.com/watch?v=pKfbY7TdqLQ)

- **NSW, 1st May 2012:** Release of NSW Parliamentary Inquiry Report on CSG (inquiry launched 5th Aug 2011)
  - **politics; policy/regulation**
  - Parliament of NSW website with associated docs:

- **NSW, 1st April 2012:** Stop CSG Sydney Monthly Community Meeting at St. Peters Hall
Section 2: Detailed timeline of SCG events in New South Wales

- **Activism/protest**
  - Facebook page: [https://www.facebook.com/events/369860093038815/](https://www.facebook.com/events/369860093038815/)

  - **NSW, 15th March 2012**: Protest march to Parliament after the Greens motion calling for a moratorium on all CSG projects in the state was voted down (16 votes to 19). 20,000+ community members signed a petition for a moratorium, a Royal Commission into the full impacts of CSG; and an immediate ban on fracking. This was put to debate following the Premier’s election promise to debate in the Lower House any petition of over 10,000 signatures. The debate on the issue was dysfunctional and the Stop CSG Illawarra action group uploaded a YouTube clip of the disrupted Parliamentary proceedings ([https://www.youtube.com/watch?v=fLQ5TrL7Xqs](https://www.youtube.com/watch?v=fLQ5TrL7Xqs)). 100 protestors had gathered outside the NSW Parliament building and 40 gained entry into the gallery. The speaker eventually ejected the 40 protesters and cleared the MPs out of the parliament before police took control.

- **Activism/protest**

  - **National, 9th March 2012**: COAG agrees to National Partnership Agreement on Coal Seam Gas and Large Coal Mining Development (see original announcement in Nov 2011)
    - **policy/regulation; government/bureaucracy**

  - **NSW, 6th March 2012**: a number of drafts policy frameworks were released by NSW Gov’t: Draft Strategic Regional Land Use Plans for the New England North West and Upper Hunter regions; NSW Draft Aquifer interference policy; NSW Draft Code of Practice for Coal Seam Gas Exploration; community consultation guidelines; guidelines for Agricultural Impact Statements. It also included announcement of new ‘GATEWAY’ approval process for CGS projects as part of the NSW Strategic Regional Land Use policy draft – this changed process for Local Environmental Plans.
    - **policy/regulation**

  - **NSW, 6th March 2012**: NSW Government formally bans BTEX compounds in CSG drilling and fracking
    - **policy/regulation; industry; environment/spills/leaks**

  - **National, 4th March 2012**: Landline program ‘Anxious Harvest’ focussing on farmers’ concerns over CSG
    - **Media**
      - Landline webpage: [http://www.abc.net.au/landline/content/2012/s3445186.htm](http://www.abc.net.au/landline/content/2012/s3445186.htm)

  - **NSW, 1st March 2012**: Public meeting at Lismore Workers Club about the CSG industry and its impact on local food production, tourism and future land use. About 700 attended the meeting which was arranged by a collaboration of North Coast anti coal-seam gas groups.
    - **Activism/protest**
      - Multiple YouTube videos of the meeting, e.g.: [https://www.youtube.com/watch?v=liG0ji2rleO](https://www.youtube.com/watch?v=liG0ji2rleO)
**Section 2: Detailed timeline of SCG events in New South Wales**

- **NSW, March - April 2012**: Activist workshops (facilitated by Simon Clough, Aidan Ricketts and Sue Higginson) at the Workers Club in Lismore to support the community action against coal seam gas mining in the Northern Rivers region.
  - Activism/protest

- **National, March 2012**: GetUp! campaign to gather 10,000 online signatures to present to the UNESCO representatives in Australia investigating the impacts of dredging in Gladstone for the CSG to LNG export facilities on the Great Barrier Reef World Heritage Area
  - Activism/protest

- **National, 28th February 2012**: Queensland Greens Senator Larissa Waters’ Bill that would have allowed the federal government to veto CSG operations that are assessed as likely to have harmed water quality rejected by Senate committee.
  - politics; government/bureaucracy

- **NSW, 13th Jan 2012**: An AGL led meeting to address water concerns in Gloucester came to halt when community representatives staged a walkout. This story and video of event was covered on Prime7
  - consultation/engagement; Activism/protest

- **Qld, 12-21st Jan 2012**: Kerry Valley, Scenic Rim (SE Qld) 10 day blockade ending with Hat Protest. There were around 14 arrests and Arrow Energy alleged that local landholders are being spurred on by ‘professional protestors’
  - Activism/protest
    - Protest video: [https://www.youtube.com/watch?v=g5yMr3p8Uws](https://www.youtube.com/watch?v=g5yMr3p8Uws)
    - Details from local protest group: [http://www.keepthescenicrimscenic.com/highlights.php](http://www.keepthescenicrimscenic.com/highlights.php)

**2011**

- **NSW, 13th December 2011**: Lismore City Council places moratorium on all CSG activities on council land
  - policy/regulation; government/bureaucracy; Activism/protest

- **NSW, Dec 2011**: NSW Gov’t extents CSG fracking moratorium until April 2012
  - policy/regulation; government/bureaucracy
Section 2: Detailed timeline of SCG events in New South Wales


- **NSW, early Dec 2011:** Barrington Gloucester Stroud Preservation Alliance mounts a 12 day blockade to prevent CSG drilling rig entering a lane
  - Activism/protest

- **National, 30th Nov 2011:** Senate Standing Committees on Rural and Regional Affairs and Transport chaired by Hon. Bill Heffernan tables the ‘Management of the Murray Darling Basin Interim report: the impact of mining coal seam gas on the management of the Murray Darling Basin’. It recommends that given the degree of uncertainty about the long-term consequences of the CSG industry on the water resources of the Great Artesian Basin, that the Commonwealth should impose a moratorium on CSG projects in that part of the Murray-Darling Basin overlying the Great Artesian Basin. It also advocated for a consistent national regulatory framework for all aspects of the coal seam gas industry and that the Commonwealth establish an independently managed trust funded by the gas companies to make financial provision for long-term rectification of problems such as leaks in sealed wells or subsidence and erosion caused by collapsing pipelines.
  - politics;

- **NSW, 22nd Nov 2011:** 20,000 signature anti-CSG petition handed over to O’Farrell’s government in Sydney
  - Activism/protest

- **National, 21st Nov 2011:** Prime Minister announced the National Partnership Agreement for the Regulation of Coal Seam Gas (NPACSG) – “partly a reward for Tony Windsor”
  - policy/regulation; government/bureaucracy

- **NSW, late Oct 2011:** Farmers blockade and deny access to Spring Ridge (Liverpool Plains) by Santos to develop new pilot test site
  - Activism/protest
  - Rural ABC reports: [http://www.abc.net.au/local/stories/2011/10/31/3352295.htm?&date=20111031](http://www.abc.net.au/local/stories/2011/10/31/3352295.htm?&date=20111031)

- **Qld, 16th Oct 2011:** Scenic Rim protest - Protestors on Peaks
  - Activism/protest

- **National, 16th Oct 2011:** Thousands rally against CSG around Australia, including around 400 people in Martin Place Sydney
  - Activism/protest

- **NSW, 13th Oct 2011**: Alan Jones hosts forum in Gunnedah about threats of coal and CSG to agricultural land, with 500 attending
  - [Activism/protest; consultation/engagement](#)

- **NSW, 18th Sept 2011**: Several hundred people rally at St Peters/Newtown in opposition to CSG
  - [Activism/protest](#)

- **NSW, 17th Sept 2011**: Santos completes acquisition of Eastern Star Gas
  - [industry](#)

- **National, 5th Sept 2011**: The Australian Petroleum Production & Exploration Association launches ‘We Want CSG’ campaign, aimed at highlighting the investment, jobs, environmental benefits and opportunities from the industry
  - [industry; Activism/protest](#)

- **NSW, 19th Aug 2011**: Public meeting in St Peters, with Dart executives hounded by 200 community members
  - [industry; Activism/protest; consultation/engagement](#)

- **NSW, 5th August 2011**: Launch of NSW Parliamentary Inquiry on CSG (report released 1st May 2012)
  - [politics; policy/regulation](#)
  - Parliament of NSW website with associated docs:

- **National, August 2011**: Greens senator Larissa Waters introduces ‘Landholders’ Right to Refuse (Coal Seam Gas) Bill 2011
  - [politics; government/bureaucracy](#)
  - Parliament website:

- **NSW, July 2011**: NSW Gov’t extents initial 60-day CSG fracking moratorium until December 2011
  - [policy/regulation; government/bureaucracy](#)

- **Qld, July 2011**: The Gas Industry Social and Environmental Research Alliance (GISERA) was co-founded by CSIRO and Australia Pacific LNG (a CSG to LNG joint venture between Origin and ConocoPhillips) and Queensland Curtis LNG (QCLNG). GISERA aims to deliver ‘public-good’ research that will benefit the broader community and industry but has received a lot of criticism for funding the majority of its research into the environmental, social and economic impacts of CSG with industry money.
Section 2: Detailed timeline of SCG events in New South Wales

- **Australian Industry, Science & Government:**

- **Qld, July 2011:** Qld Gov't lays charges against Cougar Energy for groundwater contamination in relation to underground coal gasification project
  - **Policy/regulation; Environment:**

- **NSW, 30th June 2011:** Commencement of first stage of Aquifer Interference Regulation
  - **Policy/regulation**
    - Mentioned in factsheet:

- **NSW, 29th May 2011:** 3000 people gather at Austinmer Beach in the Illawarra to create a human sign ‘Stop Coal Seam Gas’
  - **Activism/protest**

- **NSW, 23rd May 2011:** NSW Government places 60 day moratorium on new coal, petroleum and CSG exploration licences
  - **Politics; Policy/Regulation**
    - ABC Rural reports: [http://www.abc.net.au/site-archive/rural/news/content/201105/s3224226.htm](http://www.abc.net.au/site-archive/rural/news/content/201105/s3224226.htm)

- **Qld, late March—early April 2011:** Protestors, including Drew Hutton, barricade gas pipe development work at Tara
  - **Activism/protest**

- **NSW, March 2011:** Coalition wins NSW election, with an election campaign that promoted a Strategic Land Use Policy as a solution to growing unrest related to coal and CSG development
  - **Politics**
    - Mentioned in NSW Total Environment Centre report, p5

- **NSW, Feb-March 2011:** Public forums on the NSW Coal & Gas Strategy (now defunct?) held in Gunnedah, Wollongong, Lithgow and Singleton
  - **Government/bureaucracy; Consultation/Engagement**

- **Qld, 13th March 2011:** Surat Basin Engagement Committee announced
  - **Consultation/Engagement**
    - Critique: [https://independentaustralia.net/environment/environment-display/turning-csg-confrontation-into-consultation,4017](https://independentaustralia.net/environment/environment-display/turning-csg-confrontation-into-consultation,4017)

- **NSW, Feb 2011:** Two wells at Bentley, NW of Casino were found to be leaking methane
Section 2: Detailed timeline of SCG events in New South Wales

- **industry; environment/spills/leaks**
  - Mentioned in NSW Total Environment Centre report, p7


**2010**

- **National, Dec 2010**: National Water Commission issues a position statement on coal seam gas (CSG) and water issues, driven by concerns about potential risks to water resources, particularly the cumulative effects of multiple projects.
  - **government/bureaucracy; science**

- **National, Nov-Dec 2010**: Formation and launch of Lock The Gate after meetings in NSW and Qld
  - **Activism/protest**

- **National, Nov 18th 2010**: Launch of the movie Gasland in Australia
  - **Activism/protest**
    - Review by Margaret and David: [http://www.abc.net.au/atthemovies/txt/s3044685.htm](http://www.abc.net.au/atthemovies/txt/s3044685.htm)

- **NSW, Nov 2010**: Plans to test drill for CSG in Sydney’s St Peters become public
  - **industry; media**

- **NSW, Oct 2010**: NSW Farmers Federation calls for moratorium on CSG development
  - **Activism/protest**
    - Rural ABC reports: [http://www.abc.net.au/site-archive/rural/nsw/content/2010/10/s3048815.htm](http://www.abc.net.au/site-archive/rural/nsw/content/2010/10/s3048815.htm)

- **Qld, 5th Oct 2010**: Qld Government enforces ban on BTEX chemicals through legislation
  - **policy/regulation; industry; environment/spills/leaks**

- **NSW, Sept 2010**: AGL accused of dumping contaminated water near Broke in Hunter Valley
  - **industry; environment/spills/leaks**
    - Mentioned in NSW Total Environment Centre report, p7
    - Covered by 4 Cnrs: [http://www.abc.net.au/4corners/content/2011/s3144806.htm](http://www.abc.net.au/4corners/content/2011/s3144806.htm)

- **International, Jan 2010**: Josh Fox begins touring the US with his film Gasland
  - **Activism/protest**
Earlier events

- **NSW, from 2007**: The issuing of Petroleum Exploration Licences increases exponentially
  - *industry*
    - Mentioned in 2011 report from the NSW Total Environment Centre, p3

- **NSW, 2005**: Conflict between Sydney Gas and the community in the Wyong Shire over proposed gasfield development in Central Coast’s water supply catchment – which ended up not going ahead
  - *industry; Activism/protest*
    - Mentioned in 2011 report from the NSW Total Environment Centre, p3
    - Mentioned in Submission by Greg White of Wyong Shire Council 2011

- **NSW, September 2002**: NSW Resource and Conservation Assessment Council releases report on ‘Mineral and Petroleum Resources and Potential (NSW Western Regional Assessments)’
  - *government/bureaucracy; industry*

- **NSW, 2002**: Leakage of pond in Pilliga, run by Eastern Star
  - *environment/spills/leaks; industry*
    - Mentioned in 2011 report from the NSW Total Environment Centre, p3

- **NSW, 2001**: NSW’s only active CSG project – AGL’s Camden Gas Project - commences production
  - *industry*

- **Qld, 1996**: Australia’s first coal seam gas extraction begins at the Dawson Valley project in central Queensland.
  - *industry*

- **NSW, 1994**: Publication of NSW Coal Resources Committee Report, which mentions coal seam methane as in the early stages of exploration (see p59-61)
  - *government/bureaucracy; industry*
    - “… several companies are now undertaking greenfields exploration in New South Wales and Queensland with the aim of identifying economic gas resources within coal seams”
    - “In New South Wales both Pacific Power and Amoco are actively assessing the coal seam methane potential of coal seams in Southern, Newcastle, Hunter and Gunnedah Coalfields as well as the deeper part of the central Sydney Basin”

Section 3.

Possible CSG case studies in New South Wales
<table>
<thead>
<tr>
<th>Location</th>
<th>Key Issues</th>
<th>Gov't related</th>
<th>Community Protests</th>
<th>Community Forums</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarence-Moreton Basin</td>
<td>Very active and widespread opposition to CSG in the region, beginning in 2010; council referendum on CSG in Sept 2012 showed 87% of residents opposed; collaborative relationship between university researchers, activists and local government; birthplace of Gasfield Free Community movement; companies voluntarily suspended activities in early 2013; very widely publicised and celebrated 3-4 month blockade at Bentley that ended in Metgasco drilling program being cancelled in May 2014, a decision that was overturned by Supreme Court in April 2015; Luke Foley promised to ban CSG in Northern Rivers if elected; large swing against Nationals towards Greens in 2015 election largely attributed to CSG concerns in area</td>
<td>Many, but perhaps most prominent were 7,000 people turning out in 2012 at an anti-CSG rally at Lismore, and the 3-4 month blockade at Bentley in 2014; smaller opposition groups in region formed into an alliance in mid 2011; there had also been earlier long blockades and direct actions</td>
<td>Appears Metgasco conducted street stalls to distribute information about its project</td>
<td></td>
</tr>
<tr>
<td>Gloucester Basin</td>
<td>Claims that the area could supply up to 20% of NSW gas demands; very active opposition campaign - of state-wide fame - as well as some community support for CSG; AGL suspended activities after BTEX chemicals found in flowback water; Mayor withdrew support for 'Gloucester Dialogue' with AGL in Jan 2015; heavy swing from Nationals to Labor in 2015 election</td>
<td>Covered in NSW Gov't Strategic Land Use Plan for Upper Hunter</td>
<td>Numerous, e.g. 12 day blockade in Dec 2011; large protest and permanent camp planned Aug 2014; protest at AGL’s AGM in Sydney Oct 2014</td>
<td>AGL held a community forum where around 400 attended on 16.5.2013</td>
</tr>
<tr>
<td>Gunnedah Basin</td>
<td>Claims the area could supply up to 50% NSW gas demand; very active opposition; around 70 farmers blockaded farm near Spring Ridge in Oct 2011 to prevent Santos from drilling test well; area includes several highly controversial coal and CSG projects (Mauls Creek, Liverpool Plains, Narrabri Gas Project); strong opposition movement of locals and city folk, as well as there being some local support of CSG; Luke Foley promised to ban Santos’ project if elected; opposition groups actively using social media; Santos fined for water spill, traces of uranium; no swing against Nationals in Gunnedah</td>
<td>Namo Water Catchment Study; Covered in NSW Gov't Strategic Land Use Plan for New England North West</td>
<td>Numerous, including direct action tactics by local farmers, concerts, blockades and many others</td>
<td>Alan Jones hosted forum in Gunnedah, attended by around 500 people on Oct 2011; Santos held community forum in May 2013; a 400-strong audience gathered in Narrabri in another community forum (2014?)</td>
</tr>
<tr>
<td>Sydney Basin</td>
<td>Exploration in the area started with Sydney Gas in 2004, which drew much public protest and was abandoned in 2005; in 2015 Wyong and Gosford councils united against plans for CSG in central coast water catchment; NSW government ended up cancelling PEL 5 in the area, although not PEL 2 which covers that east part of the water catchment</td>
<td>Community door-to-door survey found 95% of residents opposed to CSG; 400 people attend protest on 4th March 2015</td>
<td>Appears that there have not been significant local protests, although there is at least one active opposition group</td>
<td></td>
</tr>
<tr>
<td>Hunter</td>
<td>Proximate to controversial Warkworth coal project at Bulga; the Hunter Valley Protection Alliance appears active and has organised at least several well attended community meetings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Company/Project</td>
<td>Phase/Impact</td>
<td>Opposition/Actions</td>
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<tr>
<td>Illawarra</td>
<td>Apex, AGL Illawarra Gas Project</td>
<td>Water and health impacts, aqifer damage, seismic activity, methane leaks</td>
<td>Opposition formed in early 2011; active opposition for the following years, with around 6000 members of Stop CSG Illawarra; four pilot wells drilled in the area; 16 more given consent but community opposition held these up; in July 2013, the NSW Planning Assessment Commission rejected Apex Energy’s application for an extension despite NSW Dept Planning &amp; Infrastructure recommending approval; 3 PELs in the area bought back by NSW government in early 2015, but still concerns for PEL 2</td>
<td></td>
</tr>
<tr>
<td>Sydney City</td>
<td>Dart Energy</td>
<td>Close to homes, lack of consultation and risk assessment</td>
<td>Heated protests; plans to drill at St Peters abandoned in May 2012; government rejections; Baird Government buys back and cancels licence in March 2015</td>
<td></td>
</tr>
<tr>
<td>Sydney water catchment area</td>
<td>AGL (PEL 2), Apex (444, 442, 454) - all of Apex’s leases bought back</td>
<td>Health of Sydney’s water supply</td>
<td>Appears that there have not been significant local protests, although at least some level of local opposition</td>
<td></td>
</tr>
<tr>
<td>Western Sydney</td>
<td>AGL</td>
<td>Proximity to residential areas</td>
<td>Appears that there have not been significant local protests, although at least some level of local opposition</td>
<td></td>
</tr>
</tbody>
</table>

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Notable protest in Sept 2012 where 3,000 people gathered in Bulli, Illawarra, to spell out human sign ‘Protect H2O, Stop CSG!’ in Oct 2012; community forum organised by Stop CSG Illawarra, with a range of speakers Aug 2011
Section 4.

Maps related to CSG in New South Wales
Figure 4.1: NSW Coal Basins and Coalfields

Section 4: Maps related to CSG in New South Wales

Figure 4.2: Australia’s coal seam gas reserves and gas infrastructure

Figure 4.3: Coal seam gas wells map

Figure 4.4: Lock The Gate Member Groups

Figure 4.5: Petroleum Titles in New South Wales (includes CSG)\(^1\)

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Figure 4.6: Sydney’s drinking water catchments\textsuperscript{6}

Section 4: Maps related to CSG in New South Wales

Figure 4.7: Lock the Gate’s 2015 Electoral Mining Hotspots

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Section 5.

Digitally-captured article analysis
In CSG Project, the normative project of deliberative democracy involves relationships between persons involved in communication and the consequences of that communication. Reference to the diffusion of information, news articles, reports etc on CSG in New South Wales is an essential part. These kind of information also connect communicative utterances and indicate dispositions regarding material referenced. This report will illustrate the article analysis from Australian sources the first round of CSG project (30th March 2015 to 1st May 2015).

This report consist of five sections:

- Article data collection
- Data pre-processing
- Analysis and approaches
- Topics Results
- Future work

The analysis scopes to broadcast media data, based on topic model and clustering analysis method. We did the basic statistic on the data we collected match to the publishing timeline; Retrieving the topics in each article, and integrate to the final key topics and keywords frequencies. Moreover, we integrate the targeted towns of new media data, to generate the media CSG map in New South Wales. All the data and programming functions are prepared and functionalised in order to consulting and calling.
1. **Media Data Collection**

In this round of the CSG big data tasks, we use Lexis/Nexis to collect the Australian sources include newspapers, ABC TV, radio transcripts, company directories & profile, industry trade press, magazine & journal and web based publication. In total, there are 889 articles refers to Coal Seam Gas in New South Wales, which are published by 113 news firms of Australia. In the Natural Language Processing, we are filtered all the articles which mentioned "NSW" or "towns in NSW" and "Coal Seam Gas & Australia". We list the top 20's newspaper reported CSG below (For all the agencies, please find in Appendix4):

![Top 20 Newspapers reporting on CSG](image)

*Figure 5.1: Top 20 Newspapers reporting on CSG*

As shown, 98% the news agencies are located in Australia, and most of them are from New South Wales. 20 of the 134 news agencies are from other states, such as QLD and VIC, and there are 79 of the 889 articles are published by them. However, both of them mentioned "CSG" and "NSW". We are also able to filter out the articles from other states in the future.

In the data collection, we list all the articles by timeline. (For each year, find in Appendix2)

![Article count by year](image)

*Figure 5.2: Article count by year*
There appear to be phases in the development of the CSG issue where in the 1990s there was limited discussion that this was possible. Then once there was sufficient investment by energy companies in the idea, it seems by 2008, a concerted push to locate CSG deposits was underway and by 2012, the issue came became widespread in terms of visibility by local communities and other groups. We will inquire into purchasing tweets since 2008 on this topic to see the rise of the issue and track the diffusion of information, news articles, reports, etc on CSG in New South Wales.

2. **Pre-processing**

After we have a series of discourses from media firms identified, and operationalized as a series of terms, phrases and relationships, we process the natural language processing methods (Bird, Klein, and Loper 2009). In order to format all the contents in future, we create the Non-graph database (Non-SQL), and imported all the articles and analysis results. The attributes of CSG non-SQL database include article ID, newspapers’ name, publish date time, article title/ by line, author name, category/page number, words count, article content, language, publish type, copy rights, mentioned cities, and key topics.

To implement the broadcast data to social media data in future, we also prepared the SQL relationships to the article table to setup a SQL database for web-interface of big data site in the future. As the SQL schema illustrates below:

![SQL schema diagram](image)

3. **Analysis and Approach**

Coding different types of discourses in the CSG debate within selected critical discourse moments, this could then be used to think about whether we want to focus on particular aspects of the CSG debate once we appreciate more about ‘total volumes’. And the media data is a path should be tracked.

To generate the topics of each article, we applied topic models based on Nature Language Processing toolkits. The topic model functions are a suite of algorithms that uncover the hidden
thematic structure in document collections which help us develop new ways to search, browse and summarize large archives of texts. In this case, the Latent Dirichlet Allocation (LDA) is implemented by Python utilizing Gensim toolkits and Natural Language Tool Kits with Corpora Lexis imported, to generate the topics in an article.

The LDA represents documents as mixtures of topics that split out words with certain probabilities. Suppose we have an example:

1. I like to eat broccoli and bananas.
2. I ate a banana and spinach smoothie for breakfast.
3. Chinchillas and kittens are cute.
4. My sister adopted a kitten yesterday.
5. Look at this cute hamster munching on a piece of broccoli.

Through LDA, we suppose:

Sentences 1 and 2: 100% Topic A
Sentences 3 and 4: 100% Topic B
Sentence 5: 60% Topic A, 40% Topic B

We will get the results like:

Topic A: 30% broccoli, 15% bananas, 10% breakfast, 10% munching, at which point, you could interpret topic A to be about food.

Topic B: 20% chinchillas, 20% kittens, 20% cute, 15% hamster, at which point, you could interpret topic B to be about cute animals.

It assumes that documents are produced in the following fashion: when writing each document, we decide on the number of words N the document will have (According to Poisson Distribution). And we choose a topic mixture for the document (according to Dirichlet Distribution over a fixed set of K topics). For example, assuming that we have the example that we have the two food and cute animal topics above, you might choose the document to consist of 1/3 food and 2/3 cute animals. Then generate each word w_i in the document by:

- First picking a topic (according to the multinomial distribution that you sampled above; for example, you might pick the food topic with 1/3 probability and the cute animals topic with 2/3 probability).
- Using the topic to generate the word itself (according to the topic’s multinomial distribution). For example, if we selected the food topic, we might generate the word “broccoli” with 30% probability, “bananas” with 15% probability, and so on.

Assuming this generative model for a collection of documents, LDA then tries to backtrack from the documents to find a set of topics that are likely to have generated the collection.

To operate the CSG media data, we choose K=5 topics to discover, and use the LDA to learn the topic representation of each article and the words associate to each topic, we went through each article and randomly assign each word in the article to one of the K topics; The random
assignment already gave us both topic representations of all the articles and words distributions of all the topics. There must be some improper topics existed, so to improve on them:

For each article a in all the articles A, go through each word w in a:

For each topic t, compute

\[ p(t \mid a) = \text{the proportion of words in document } a \text{ that are currently assigned to topic } t; \]
\[ p(w \mid t) = \text{the proportion of assignments to topic } t \text{ over all articles that come from this word } w. \]

Reassign w a new topic, where we choose topic t with probability \( p(t \mid a) \times p(w \mid t). \) (In other words, in this computation, we assumed that all topic assignments except for the current word in question are correct, and then updating the assignment of the current word using our model of how articles are generated)

Loop \( N^3 \) times (at least), we would eventually reach a roughly steady state. So use these assignments to estimate the topic mixtures of each article and the words associated to each topic.

4. Article Topics

For the topics we generated through each article, we count the top 15 topics by year as shown below (Appendix3):
It can be seen from the above chart in the year of 2009, LNG topic was the most popular topic among the media and newspaper report. Meanwhile, a company named Santos also appeared in the list of top 15 topics. From 2010 onwards, water topic increasingly became the biggest concern for the media reports, and it became the most appeared topic in 2013 and 2014 respectively. To explain the changes of water topic, we may concern that water problem has become more seriously than the topic "environmental" in terms of the CSG project in recent years. Industry kept its steady appearance in media reports, becoming the second most topic in 2014. As for the topic "government", it appeared in the year of 2010, after which it was mentioned more frequently in the CSG issues. Interestingly, mining topic experienced dramatic changes from 15th in 2010 to the top 5 topics in the following years. With the mining topic appears, "exploration" start to appear. And in the following two years, "Drilling", "Wells", "Farmers", "People", and "Land" appears. To the year 2012, AGL became more and more important than LNG in the media reports. Over the years of 2013 and 2014, "Areas", "State", "Camden", "Gloucester" and some other coal seam gas producing fields were increasingly mentioned. According to the possible NSW coal seam gas cases, AGL planned to start their CSG project in Central Coast, Gloucester, Camden and Campbelltown from the year 2012 to 2015, which exactly matched with the media reports analysis. We aim to identify the topics and target the discourse in social networking by tracking these media reports result in the future.

5. **Mentioned Cities and Future tasks**

We gathered the NSW townlist from [http://www.postcodes-australia.com/areas/nsw](http://www.postcodes-australia.com/areas/nsw) and verify on [www.gnb.nsw.gov.au](http://www.gnb.nsw.gov.au) (Appendix1). We filtered the mentioned towns from media reports in 2014 and list it below (Appendix5):

![Figure 5.5: Towns mentioned in CSG media reports](image)

To check which towns does the news media mentioned, this function may exist bugs some towns are not relevant but be repeatedly mentioned like Sydney, The Risk, Federal etc. This
function will be improved in the future. And we hope to present the heat map of media and social networking topics in NSW.