Submission to AEMC on the Northern Gas Pipeline

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Healthy planet, healthy people.

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-Government organisation of medical doctors in all Australian States and Territories. Our members work across all specialties in community, hospital and private practices. We work to prevent and address the diseases - local, national and global - caused by damage to our natural environment. We are a public health voice in the sphere of environmental health with a primary focus on the health harms from pollution and climate change.

DEA has recognised expertise in onshore gas and oil development in terms of its health and environmental impacts. It has made many submissions to governments on unconventional gas since 2011 (Appendix A).

Recommendations

Containment of gas development is vital if national and international greenhouse emissions are to be reduced quickly to address accelerating climate change.

It is inappropriate to use subsidies for a pipeline which would enable gas production to be increased. Derogation is effectively a subsidy for the pipeline paid for by consumers.

Onshore gas development has an increasing number of concerning medical impacts which will need costly health and environmental monitoring and will further detract from the economic viability of the project at a time when renewable energy development is cheaper and non harmful.

Evidence

These recommendations are based on evidence we have provided in six previous submissions since 2014 on Northern Territory gas development (Appendix B). The reservations we expressed have generally not been accepted.

However much more compelling evidence has emerged recently and is detailed in a Background Policy Paper[2] which has been presented at COP24 as a summary[3].

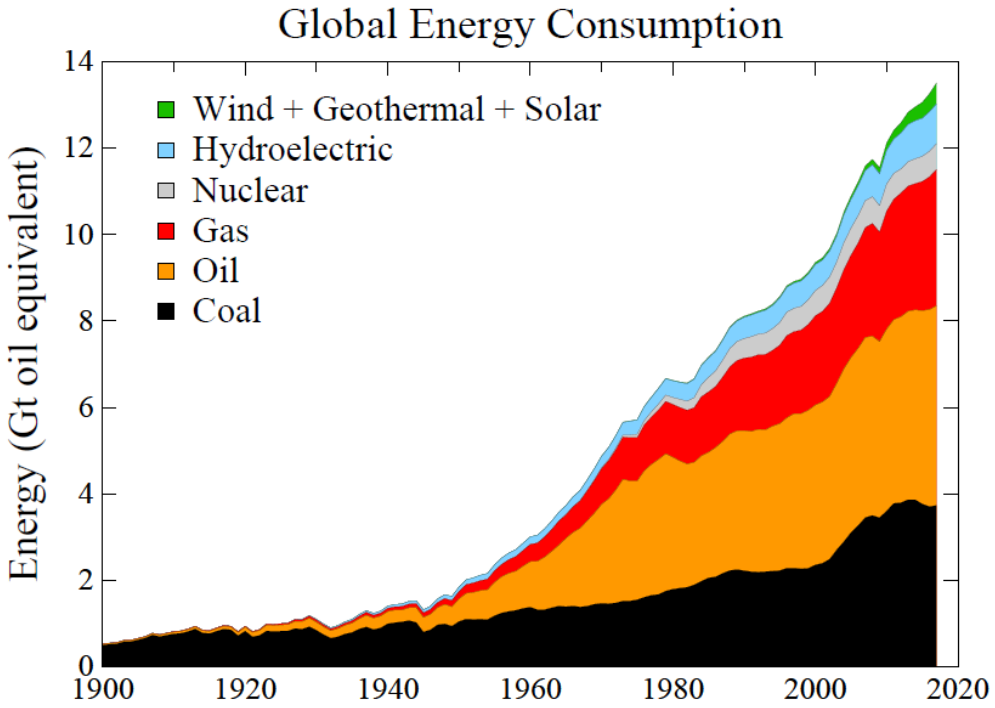
The new compelling evidence is

- That several studies have indicated possible harm to the unborn in inhabitants of gas fields. There are increasingly consistent observations of higher frequencies of negative birth outcomes such as low birth weight, extreme pre-term delivery, higher risk births and some birth defects (Background Policy Paper pages 5 and 38)

- That full life cycle analysis of UGas emissions approaches those of coal, negating the supposed benefit as a transition fuel and furthermore UGas emissions are increasingly recognised as a significant cause of rising emissions in Australia and the world (Background Policy Paper section 4, page 18)

- That the externalities of gas are not included in the market price in the same way that the worldwide economic social and health cost of coal are denied. Indeed, gas is likely to carry similar world-wide costs as coal and UNFCCC has recently stated that fossil fuel subsidies must cease to address this problem.[4]

- That climate change is approaching a tipping point from which climate change will accelerate and may be impossible to contain. In 2015 it was reported that in order to meet the minimum target of 2 °C, "a third of oil reserves, half of gas reserves and over 80 per cent of current coal reserves should remain unused from 2010 to 2050", McGlade and Ekins (2015).[5] On the evidence today it is likely that even more fossil fuels need to remain unused for gas usage is increasing faster than that of coal



Source: 1965-2017 BP Statistical Review of World Energy; 1900-1965 Department of Energy Carbon Dioxide Information and Analysis Center (Energy unit: Gt = gigatons = billion tons of oil equivalent)

The future of the gas industry is insecure, taking into account the above findings. However, extreme weather events in all Continents are rapidly convincing the public that more action on emissions is vital. Once governments are convinced, much gas development may become a stranded asset. Subsidies from governments to help the gas and coal industry will not be acceptable.[6]

It will no longer be possible for the federal and state governments of Australia to prefer short term gain and jobs to the long-term interests of humanity.

The company appreciates that climate change risks exist and acknowledges they may "negatively affect" its business. But the company does not appreciate the full extent of climate change impacts. The company merely refers to "negative impacts" on its operations, profits and financial position.[7]

The current risk appreciation by the company is unrealistic when it writes;

As a result of global climate changes, extreme weather events (for example, wind, floods, tidal storm surges, heatwaves and dust-storms) of increasing intensity and frequency are predicted. Extreme weather events may negatively affect the networks in the form of infrastructure damage and network outages. The occurrence of any of these events may negatively affect SGSPAA Group's electricity and gas networks and third party power generators or gas suppliers in a manner that may disrupt the supply of electricity or gas and thereby have an adverse effect on SGSPAA Group's operations, profits and financial position. ***(p12)***

And

Ongoing development of Australian State, Territory and Federal climate change and energy efficiency policies may negatively impact on customer demand volumes in the gas and electricity sectors. Costs arising from compliance with some climate change policies may be mitigated via tariff adjustment and contractual processes. The factors described above could have a negative impact on SGSPAA Group's operations, profits and financial position.

The most important risk to gas development is national and international action on climate change which must occur soon if climate catastrophe is to be averted.

Conclusion

The AEMC is primarily concerned with the National Gas Objective *"to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."*

However, reduction of gas development must also be a national security objective to reduce emissions and thereby prevent national health, environmental and economic impacts of climate change. Government bodies such as the AEMC cannot ignore reality. It is not in the national or international interest for an effective subsidy to be applied in the face of effects on future generations and any member of the AEMC who has children will recognise the problem.[8]

References

[1] https://www.aemc.gov.au/contact-us/lodge-submission

[2] https://www.dea.org.au/wp-content/uploads/2018/12/DEA-Oil-and-Gas-final-28-11-18.pdf

[3] http://apo.org.au/node/208281

[4] https://unfccc.int/news/g20-must-phase-out-fossil-fuel-subsidies-by-2020

[5] https://www.nature.com/articles/nature14016

[6] https://www.who.int/globalchange/publications/COP24-report-health-climate-change/en/ (6.2.2)

[7] https://links.sgx.com/FileOpen/545821_7_CL_HRBannerless_10001.ashx?App=Prospectus&FileID=35025

[8] https://www.dea.org.au/wp-content/uploads/Children_and_climate_change_report-_No_Time_for_Games_web.pdf

Appendix A

Unconventional gas mining; Doctors for the Environment Australia submissions to Governments 2011-2018

Independent Scientific Panel Inquiry into Hydraulic Fracture Stimulation in Western Australia 2018
March 2018
https://www.dea.org.au/wp-content/uploads/2018/03/Inquiry-into-Hydraulic-Fracture-Stimulation-inWestern-Australia-2017-Submission-03-18.pdf

Scientific Inquiry into Hydraulic Fracturing in the Northern Territory in Response to the Draft Final Report 2018
February 2018
https://www.dea.org.au/wp-content/uploads/2018/02/Scientific-Inquiry-into-Hydraulic-Fracturing-inthe-NT-02-18.pdf

Supplementary Submission to the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory
October 2017
https://www.dea.org.au/wp-content/uploads/2017/10/Supplementary-Submission-to-the-ScientificInquiry-into-Hydraulic-Fracturing-in-the-NT-10-17.pdf

Narrabri Gas Project
May 2017
https://www.dea.org.au/wp-content/uploads/2017/05/Narrabri-Gas-Project-Submission-Final-05-17.pdf

Scientific Inquiry into Hydraulic Fracturing in the Northern Territory
April 2017
https://www.dea.org.au/wp-content/uploads/2017/04/Scientific-Inquiry-into-Hydraulic-Fracturing-inthe-NT-Submission-04-17.pdf

Jemena Northern Gas Pipeline EIS
October 2016
https://www.dea.org.au/wp-content/uploads/2017/02/Jemena-Northern-Gas-Pipeline-EISsubmission-10-16.pdf

Inquiry into Hydraulic Fracturing of Unconventional reservoirs onshore within the NT 2016 (ToR)
October 2016
https://www.dea.org.au/wpcontent/uploads/2016/10/NT_Inquiry_into_Hydraulic_Fracturing_of_Unconventional_Reservoirs_submission_10-16.pdf

Select Committee on Unconventional Gas Mining
March 2016
https://www.dea.org.au/wp-content/uploads/Select_Committee_on_UG_Mining_Submission_03-16.pdf

Inquiry into Unconventional Gas in Victoria
July 2015
https://www.dea.org.au/wp-content/uploads/2017/04/Unconventional-Gas-VIC-submission-07-15.pdf

Inquiry into Unconventional Gas (Fracking) – South Australia
January 2015
https://www.dea.org.au/wp-content/uploads/2017/02/Inquiry-into-Unconventional-Gas-SA-01-15.pdf

Review of Hydraulic Fracturing (Fracking) in Tasmania
December 2014
https://www.dea.org.au/wp-content/uploads/2017/04/Review-of-Hydraulic-Fracturing-Fracking-inTasmania-12-14.pdf

Certain Aspects of Queensland Government Administration related to Commonwealth Government Affairs
November 2014
https://www.dea.org.au/wp-content/uploads/2017/03/Certain-Aspects-of-QLD-GovernmentAdministration-Submission-11-14.pdf

Presentation to the Planning and Assessment Commission regarding the Narrabri Coal Seam Gas Mining Project Australia
June 2014
https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2014/05/dewhurst-gasexploration-and-pilot-expansion-project-ssd6038/public-meeting--presentations-tabled/42-drmelissa-haswell--doctors-for-the-environmentpdf.pdf

Hydraulic Fracturing Inquiry Northern Territory Submission
May 2014
https://www.dea.org.au/wp-content/uploads/2017/04/DEA-Hydraulic-fracturing-in-NT-inquiryfinal.pdf

Implications for Western Australia of Hydraulic Fracturing for Unconventional Gas
September 2013
https://www.dea.org.au/wp-content/uploads/2017/04/WA-Inquiry-into-Hydraulic-Fracturing-UGSubmission-09-13.pdf

Amendments to the NSW State Environmental Policy Plan (SEPP) on Mining, Petroleum Products and Extractive Industries Amendment (Resource Significance) 2013
August 2013
http://dea.org.au/images/uploads/submissions/NSW_Mining_SEPP_Submission_08-13_.pdf

Draft significant impact guidelines: Coal seam gas and large coal mining developments –impacts on water resources
July 2013
http://dea.org.au/images/uploads/submissions/CSG_and_large_coal_mining_impacts_on_water_resources_submission_07-13.pdf

NSW Government Planning Review – White Paper
June 2013
http://dea.org.au/images/uploads/submissions/NSW_Planning_Review_White_Paper_submission_06-13.pdf

Management of the Murray Darling Basin – impact of mining coal seam gas
June 2011
https://www.dea.org.au/wp-content/uploads/2017/05/MDB_CSG_Senate_submission_June_2011.pdf

Appendix B

Previous evidence submitted by DEA in six submissions-

(1) Submission to the Hydraulic Fracturing Inquiry Northern Territory, May 2014
https://www.dea.org.au/wp-content/uploads/2017/04/DEA-Hydraulic-fracturing-in-NT-inquiry-final.pdf

DEA made nine important recommendations which are repeated in the submissions below. None have been addressed satisfactorily, some not at all.
Of most relevance to the Current Northern Pipeline submission is Recommendation 2:
A broader inquiry into energy policy and economic development in the NT should be undertaken to complement this inquiry into hydraulic fracturing in order to establish the economic and health effects of all possible energy sources.

(2) Submission into the Terms of Reference for the Inquiry into Hydraulic Fracturing of Unconventional reservoirs onshore within the NT, October 2016
https://www.dea.org.au/wp-content/uploads/2016/10/NT_Inquiry_into_Hydraulic_Fracturing_of_Unconventional_Reservoirs_submission_10-16.pdf

Recommendations
Doctors for the Environment Australia recommends that the following be considered for inclusion in the terms of reference and membership of the panel.

- An Indigenous representative needs to be a member of the Panel.
- A member of the Panel should have public health and epidemiological expertise.
- All impacts of the unconventional gas industry should be considered not just those due to fracking
- Surface water impacts as well as ground water; waste water
- Sustainability impacts of water usage and impacts on community needs
- Assessment of baseline NT water resources before UG development is considered
- The overall human health risks and impacts over the short and long term

- Noxious emissions from all sources in the UG process
- Greenhouse emissions and their climate change impacts on the NT and Australia's ability to fulfil its international obligation

(3) Submission into Jemena Northern Gas Pipeline EIS, October 2016
https://www.dea.org.au/wp-content/uploads/2017/02/Jemena-Northern-Gas-Pipeline-EIS-submission-10-16.pdf

In summary we stated:

We note that the new ALP government is continuing the previous government's response to the development of onshore oil and gas. However, we believe that in the current increasing recognition of the short and long-term problems arising from oil and gas, it is timely for a new government to question the rationale for such commitment and demonstrate a difference between the major political parties. We have entered a new era. Health, economic, ecological costs and benefits of oil and gas development need to be questioned.

The Terms of Reference of this Inquiry do not address the issues raised by DEA in our submission around the link between the pipeline project and the onshore gas development required to make the project viable. Nonetheless we have responded to this EIS. We are particularly concerned about the impacts of the project in exacerbating climate change by enabling on going investment in fossil fuel extraction.

Comment, the need for this development:

We question the assumption that there is a need for the Northern Gas Pipeline to meet energy demands in Queensland and New South Wales. This unjustified assumption underpins the entire project. If energy demands on the eastern seaboard can be met more efficiently without this project then the considerable investment involved over decadal time frames could be better used elsewhere, particularly in renewable energy.

The assumption that stimulating gas exploration will result in economic development opportunities also requires further examination. The experience of Queensland is that the gas industry boom has not provided the anticipated long-term benefit for rural people, particularly Aboriginal people.

The Institute for Energy Economics and Financial Analysis, a US based think tank, concluded that the project itself is not economically viable, since there is already a glut of gas worldwide, and would be based on government subsidies through PWC (Power and Water Corporation),

the only customer for the gas to date.[9] The reduction in proposed pipe diameter is evidence of its dubious economic viability. These issues should be fully addressed in the justification of the project before it is allowed to proceed further.

(4) Submission to the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, April 2017
https://www.dea.org.au/wp-content/uploads/2017/04/Scientific-Inquiry-into-Hydraulic-Fracturing-in-the-NT-Submission-04-17.pdf

Key recommendations were

1. That the exploration and extraction of unconventional gas in the NT, including the use of hydraulic fracturing, be subject to an indefinite moratorium until health risk assessments of procedures and chemicals have been undertaken on an industry wide basis.

2. If the moratorium is rejected, mandatory Health Impact Assessments (HIA) for all UGD appropriate to the industry. This process should ensure:
   - Comprehensive epidemiological studies of population health both before and after gas extraction commences.
   - Support for research on potential health effects of UGD independent of industry funding, including long term prospective health studies.
   - Health surveillance of persons living and working near major UGD.
   - HIA to consider the health implications of greenhouse gas emissions on both Australian and international communities.

3. If the moratorium is rejected, adequate environmental monitoring be undertaken for the lifetime the project, including:
   - A mandatory full public disclosure of all chemicals used in the gas industry, and assessment of all chemicals for safety by the national industrial chemical regulator.
   - Independently audited air monitoring programs with publicly available results.
   - Comprehensive water monitoring programs that would provide early warning of potential contamination events.
   - Effective independent monitoring and reporting of waste water produced and methods of disposal.
   - Sufficient capacity and resources to effectively oversee compliance.

4. Review of all water legislation under drinking water Acts to ensure protection of surface and groundwater.

5. Full life cycle analysis of greenhouse gas from UGD, in accordance with Australia's commitment to reducing emissions as a signatory to the Paris Agreement

(5) Supplementary Submission to the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, October 2017
https://www.dea.org.au/wp-content/uploads/2017/10/Supplementary-Submission-to-the-Scientific-Inquiry-into-Hydraulic-Fracturing-in-the-NT-10-17.pdf

(6) Scientific Inquiry into Hydraulic Fracturing in the Northern Territory in Response to the Draft Final Report, February 2018
https://www.dea.org.au/wp-content/uploads/2018/02/Scientific-Inquiry-into-Hydraulic-Fracturing-in-the-NT-02-18.pdf

Principal Recommendation was that the moratorium on fracking in NT should be extended indefinitely.

This recommendation is based on:

1. The risk to health and the environment from fracking is not resolved as seen by widely differing conclusions in different states based on the same basic scientific evidence

2. Fracking will greatly increase greenhouse emissions which place the world and Australia in particular under increasing risk and the NT will suffer from the increasing harms

3. Alternative energy developments are available to NT which do not harm health, the environment or the climate and these have not been adequately explored and considered

4. Prolific use of water by fracking in a water scarce environment is a threat to fundamental human rights

5. Trust in the government to re -establish confidence in development approvals by a government acting as arbitrator and not as a proponent

6. Aboriginal needs have received inadequate attention

[9] http://ieefa.org/wp-content/uploads/2016/05/Pipe-Dream-A-Financial-Analysis-of-the-NEGI-MAY-2016.pdf