

Submission by the Social Justice Commission of the Uniting Church Western Australia

**Submission to the  
Independent Scientific Panel Inquiry into Hydraulic Fracture Stimulation in  
Western Australia**



**Social Justice Commission**  

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**Uniting Church Western Australia**

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## **Introduction**

The Social Justice Commission of the Uniting Church in Australia, Synod of Western Australia (UCWA) welcomes the opportunity to make a submission to the Independent Scientific Panel Inquiry into Hydraulic Fracture Stimulation in Western Australia. The Social Justice Commission is keenly aware of the urgent climate action needed to restrict global warming to 1.5°C as agreed to by the Australian Government at the COP21 meeting in Paris. The climatic impacts of opening up Western Australia to the extraction of onshore gas through hydraulic fracturing (fracking) is a primary concern for the UCWA. Alongside this come an array of other concerns about the impacts of the fracking process on groundwater, surface water, agricultural land, native flora and fauna, and public health. At the forefront of our minds are the people connected to the Country on which any fracking may take place, in particular the Aboriginal peoples across Western Australia and the potential impacts that fracking may have on their sacred places, culture and health.

## **For the sake of the planet and all its people**

The Uniting Church is committed to involvement in the making of just public policy that prioritises the needs of the most vulnerable and disadvantaged in our society. In 1977, the Inaugural Assembly issued a Statement to the Nation. In this statement, the Church declared “our response to the Christian gospel will continue to involve us in social and national affairs.” In relation to care for the environment, the statement said:

“We are concerned with the basic human rights of future generations and will urge the wise use of energy, the protection of the environment and the replenishment of the earth's resources for their use and enjoyment.”<sup>1</sup>

The Uniting Church believes that the natural environment is not merely a resource for the benefit of human beings but has intrinsic value as part of God’s good creation. The Church’s commitment to the environment arises out of the Christian belief that God, as the Creator of the universe, calls us into a special relationship with the environment – a relationship of mutuality and interdependence which seeks the reconciliation of all creation with God. We believe that God’s will for the earth is renewal and reconciliation, not destruction by human beings.

The Uniting Church regards human-induced climate change as a most serious threat to the future and integrity of life on earth. In 2006, the Assembly Standing Committee resolved to adopt the statement ‘For the Sake of the Planet and all Its People: A Uniting Church in Australia Statement on Climate Change’.<sup>2</sup> In part, the statement declares:

“It is increasingly the case that some humans consume the earth’s resources whilst other humans pay the price. Australia must acknowledge that it has a responsibility to reduce our reliance on fossil fuels. As long as we remain prepared to abuse the atmosphere and entire

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<sup>1</sup> <http://www.unitingjustice.org.au/uniting-church-statements/key-assembly-statements/item/511-statement-to-the-nation>

<sup>2</sup> <http://www.unitingjustice.org.au/environment/uca-statements/item/481-for-the-sake-of-the-planet-and-all-its-people>

ecosystems for the sake of short-term economic gain for a few, we undermine our own future.”

For the Uniting Church, social justice and environmental sustainability are inherently connected to each other and must always take precedence over the desire for increasing profits and the amassing of wealth by a relative few. As one of the major producers of greenhouse gas (GHG) emissions per capita, Australia must acknowledge that it has a responsibility to address the social, economic and environmental policies which support our continued reliance on fossil fuels. With the gas sector in Western Australia already one of the major GHG emitters, it is incumbent upon the Western Australian government to plan and implement a transition away from fossil fuels, rather than allowing the expansion of the gas industry in to significant new fields.

In addition to the climatic impacts inherent in the expansion of onshore gas extraction in Western Australia, the UCWA has particular concerns about the impacts of the hydraulic fracturing extraction method (fracking). At its annual meeting in 2014, the Synod of Western Australia resolved by consensus to:

1. Note that the Hydraulic Fracturing ('Fracking') process:
  - a. uses large volumes of toxic chemicals at high pressure to extract gas;
  - b. is known to have contaminated groundwater aquifers;
  - c. produces significant greenhouse gas emissions in both the extraction process and post-production usage and;
  - d. impacts on natural landscapes and ecosystems, and agricultural productivity when situated on viable agricultural landholdings.
2. Ask the Government of Western Australia to recognise
  - a. the inadequacy of the Petroleum and Geothermal Energy Resources Act 1967 (WA) to protect the environmental integrity of gas fracking sites.
  - b. the increasing risks to ecosystem and human health due to the cumulative impacts of multiple gas fracking sites.
3. Call on the Government of Western Australia to place a moratorium on all unconventional gas exploration and extraction activities in Western Australia.
4. Call on the Government and people of Western Australia to move towards renewable energy and away from fossil fuels for the sake of the earth and its peoples.

The UCWA therefore appreciates the current government's implementation of a state-wide moratorium on fracking, plus the ban currently in place in the Perth Metropolitan, Peel and South-West regions. The UCWA also values the undertaking of this independent scientific inquiry on fracking to investigate the persisting concerns we have relating to the environmental and health impacts of fracking.

## Respect for First Peoples

At its Seventh National Assembly, the Uniting Church formally entered into a relationship of Covenant with its Indigenous members, recognising and repenting for the Church's complicity in the injustices perpetrated on Australia's Indigenous community, and pledging to move forward with a shared future. The ongoing and continually renewing nature of the Covenant, and its clear missional grounding in the life of the nation as well as the life of the Church, calls the Uniting Church to continually act to remove the systems and structures of discrimination and oppression in Australia.

The UCWA therefore stands with the Uniting Aboriginal & Islander Christian Congress WA Regional Committee in a shared concern for the First Peoples who may be impacted by the incursion of the gas fracking industry on their traditional lands. The UCWA notes the decision of the Northern Synod of the Uniting Church in Australia, which encompasses the Kimberley region of Western Australia, to call for the refusal of permission to develop "shale seam gas extraction that uses the fracking process." It has also endorsed the position of the Northern Territory Environment Centre in their call to maintain healthy aquifers.

The UCWA acknowledges and respects the deep spiritual and cultural connections that Aboriginal people have with their traditional lands. We have seen and been told of the benefits of First People's staying connected to their Country for both the health of the people and the Country.<sup>3</sup> The UCWA is therefore concerned about any impacts to Aboriginal sacred sites and songlines, hunting and food gathering regions, or environmental disturbance that the gas fracking industry may incur.

According to the Aboriginal Areas Protection Authority in their recent submission to the Northern Territory's Scientific Inquiry into Hydraulic Fracturing:

"Sacred sites are an integral part of Indigenous people's social and cultural lives. They are integrally associated with traditional creation stories or narratives that codify a corpus of Indigenous law that applies and permeates to the deepest levels of Indigenous society. The protection and maintenance of sacred sites is of the utmost importance to the maintenance of the social fabric of Indigenous people in the Northern Territory of Australia."<sup>4</sup>

The submission goes on to explain that Aboriginal connection to Country is not limited to the visible surface:

"There is no doubt that Aboriginal beliefs about the sanctity of land encompass beliefs, knowledge and sanctions that do extend to the subterranean. Many narrative accounts depict ancestral heroes travelling underground, or being embedded in the earth at locations typically referred to as sacred sites."<sup>5</sup>

A key component of Aboriginal culture is in connection to water throughout the landscape. Water formations are often connected to spirituality and identity, requiring the ongoing responsibility to

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<sup>3</sup> <https://www.countryneedspeople.org.au/research>

<sup>4</sup> <https://frackinginquiry.nt.gov.au/?a=428350> pg 4.

<sup>5</sup> <https://frackinginquiry.nt.gov.au/?a=428350> pg 14.

maintain water sites. According to the Australian Human Rights Commission 2008 Native Title Report<sup>6</sup>, in relation to water, Aboriginal “cultural and customary rights and responsibilities include:

- a spiritual connection to lands, waters and natural resources associated with water places
- management of significant sites located along river banks, on and in the river beds, and sites and stories associated with the water and natural resources located in the rivers and their tributaries, and the sea
- protection of Indigenous cultural heritage and knowledge associated with water and water places
- access to cultural activities such as hunting and fishing, and ceremony.”

To give more detail to what is an often poorly understood aspect of Aboriginal culture, the Aboriginal Areas Protection Authority (AAPA) explain that the impacts of fracking on surface and sub-surface water is troubling for many Aboriginal people in the north of Australia:

“Contamination of such waterbodies is a key concern, with a common belief being that ritual cycles and the meaningful exchange of resources between clans may be threatened. Aboriginal people commonly attribute fertility and health of humans to the health and ceremonial maintenance of sacred sites.”<sup>7</sup>

The AAPA submission also highlights the potential impacts on sacred sites that are interconnected across Country linking different water sources. It will be difficult to ensure that a sacred site won't be affected by the fracking process as it is likely to be connected to a subsurface water source that may extend far beyond its visible surface manifestation. The AAPA submission also highlights that vegetation clearing involved with fracking may also impact on sacred sites with the example that a particular stand of trees may act as a key marker for a site.

## **Air Pollution – Greenhouse Gas Emissions**

In Australia, the energy sector is the largest source of pollution that causes climate change. In WA, the gas industry is already a major contributor to GHG emissions. According to the latest Federal Government Greenhouse Gas (GHG) report: “Energy industries excluding electricity increased 3.4 Mt CO<sub>2</sub>-e in 2016-17 compared with the previous year, and this was primarily driven by a 41.6% increase in LNG production.”<sup>8</sup> This is only a partial accounting of GHG emissions from Australia's gas resources as most of it is exported and burnt for energy in other countries and so does not appear in Australia's GHG reporting.

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<sup>6</sup>[https://www.humanrights.gov.au/sites/default/files/content/social\\_justice/nt\\_report/ntreport08/pdf/chap6.pdf](https://www.humanrights.gov.au/sites/default/files/content/social_justice/nt_report/ntreport08/pdf/chap6.pdf)

<sup>7</sup> <https://frackinginquiry.nt.gov.au/?a=428350> pg 14.

<sup>8</sup> <http://www.environment.gov.au/system/files/resources/62506dca-2cb1-4613-82cd-fa46c7a0df42/files/nggi-quarterly-update-june-2017.pdf>

Despite this, Scope 1 GHG emissions from oil and gas extraction has increased by 73.1% since 1990<sup>9</sup> (40% over the past 6 years) and is rapidly catching up to the emissions produced by coal mining<sup>10</sup>. At 23,887,564 tCO<sub>2</sub>-e in 2015-16 it is the 4<sup>th</sup> largest sector for reported Scope 1 emissions in the National Greenhouse and Energy Reporting Scheme – a figure that does not incorporate the subsequent burning of the fuel either in Australia or overseas. Oil and gas extraction is a top 3 source of GHG emissions for WA, SA, NT and Vic.<sup>11</sup>

To therefore consider expanding the WA gas industry into the vast onshore unconventional reserves is, in our view, an irresponsible move in the light of the climate science behind the Paris Climate Agreement. According to a recent Climate Analytics report<sup>12</sup>, even the “full exploitation of Western Australia’s conventional gas reserves for both domestic use and LNG exports present major challenges for the State to comply with a Paris Agreement-compatible carbon budget” (emphasis theirs). At a time when we need to be de-carbonising our economy to meet our commitments under the Paris Agreement, opening new fossil fuel reserves for exploitation is only going to further undermine any efforts towards meeting our required targets.

As a Church, we have repeatedly urged the Australian government to honour the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement under it, by moving away from fossil fuels and showcasing our engagement and commitment to mitigate climate change. If we are to limit global warming to below 1.5° C, there is very little carbon budget remaining. The implications of this are that Australia cannot afford to delay any further and needs to undertake an urgent energy transition away from fossil fuels and towards renewables domestically<sup>13</sup>.

We know we are not alone in our concerns among the broader faith community, with a diverse range of religious bodies having aligned themselves with inter-governmental and inter-disciplinary bodies seeking to address climate change.<sup>14</sup> Over several decades the World Council of Churches has been to the forefront of calls for sustainability, justice, peace and the integrity of creation – and most recently in making statements on climate change and climate justice.<sup>15</sup>

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<sup>9</sup> <http://www.environment.gov.au/system/files/resources/6d9b52d1-cc14-41b7-90e3-f3b2e03bd547/files/national-inventory-economic-sector-2015.pdf>

<sup>10</sup> <http://www.cleanenergyregulator.gov.au/NGER/National%20greenhouse%20and%20energy%20reporting%20data/a-closer-look-at-emissions-and-energy-data/australia%E2%80%99s-scope-1-emissions-by-industry-for-nger-reporters>

<sup>11</sup> <http://www.cleanenergyregulator.gov.au/DocumentAssets/Documents/State%20and%20territory%20emissions%20profile%20factsheet.pdf>

<sup>12</sup> <http://climateanalytics.org/publications/2018/western-australias-gas-gamble.html>

<sup>13</sup> Sivan Kartha, *Implications for Australia of a 1.5°C future*, Stockholm Environment Institute, Working Paper 2016-09.

<sup>14</sup> Paul O. Ingram, *You Have Been Told What Is Good: Interreligious Dialogue and Climate Change*, (Eugene: Cascade Books, 2016); World Council of Churches, “Interfaith Statement to the Plenary of the High Level Ministerial Segment of COP 23”, 16 November 2017, <https://www.oikoumene.org/en/resources/documents/interfaith-statement-to-the-plenary-of-the-high-level-ministerial-segment-of-cop23>

<sup>15</sup> The World Council of Churches: <http://www.oikoumene.org/en/resources/documents/wcc-programmes/diakonia/climate-change/climate-change>

Here in Australia, the National Council of Churches established a partnership with the Australian Conservation Foundation in 2005 calling for action from individuals, churches and governments 'to tackle dangerous climate change'.<sup>16</sup>

The particularly acute climate impacts of fracking in the Western Australian geography is of further concern. According to Howarth et al (2011)<sup>17</sup> the greenhouse gas footprint for shale gas on a 20 year horizon is 22% to 43% greater than that for conventional gas and at least 20% greater than that for coal. This is largely due to fugitive emissions of methane over the full life-cycle of a well – methane being a significantly more potent greenhouse gas than carbon dioxide.

Research conducted by Climate Analytics in the report cited earlier suggests that expanding the WA gas industry into onshore unconventional gas extraction will take Australia far beyond its carbon budget requirements for a safe climate:

“The domestic carbon footprint from Western Australia’s unconventional gas resources is about three times what Australia is allowed to emit in order to comply with the Paris Agreement. The carbon footprint of Canning Basin resources alone is equivalent to about double this budget” (emphasis theirs).

This is a very concerning level of climate impact that is likely to come from the hydraulic fracturing process that we have a moral obligation to avoid.

### **Concerns for the community, environment and health**

The UCWA holds a range of other concerns about the impacts of fracking. These include impacts to biodiversity through clearing, environmental impacts of fracking fluids or gases entering surface or sub-surface water systems, and health impacts on people in proximity of the wells.

Western Australian landscapes, species and ecosystems are unique and fragile. Western Australia is a unique area of native flora and fauna that does not cope well with soil disturbance, particularly in the South-West floristic region which encompasses the Dandaragan trough.<sup>18</sup> With numerous endangered species trying to survive in an ever-decreasing habitat, it is incumbent upon us to do all we can to protect the remaining natural areas of Western Australia. Having access tracks and well pads for fracking operations cleared across significant areas of native vegetation is yet another detrimental impact to vulnerable ecosystems. An impact upon our unique biodiverse environment that would best be avoided.

The significant volume of water required for fracking operations is also of concern as are the chemicals used in the process. It is difficult to justify such water use in a drying climate<sup>19</sup> and it is of further concern how the vast volumes of contaminated waste water are to be managed, particularly

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<sup>16</sup> <http://www.ncca.org.au/links-1/item/371-churches-and-conservationists-join-forces-to-tackle-climate-change>

<sup>17</sup> <http://www.atkinson.cornell.edu/Assets/ACSF/docs/attachments/Howarth-EtAl-2011.pdf>

<sup>18</sup> Hopper, S.D., 2009. “OCBIL theory: towards an integrated understanding of the evolution, ecology and conservation of biodiversity on old, climatically buffered, infertile landscapes.” *Plant and Soil*, 322(1/2), 49-86.

<sup>19</sup> <http://www.csiro.au/en/Research/OandA/Areas/Assessing-our-climate/State-of-the-Climate/2014-SoC-Report>

in areas prone to flooding and cyclones. Impacts on water supplies is also a significant concern for agricultural areas who are highly dependent of safe water sources for crops and animals.

A further concern of particular significance is the impact of the fracking process on human health. This relates to the direct impact fracking operations can have on water and air quality<sup>20</sup> as well as safety and psychological factors with increased industry traffic, noise and operations. People living and working in the areas with unconventional gas reserves deserve to be able to enjoy the clean and beautiful surrounds they are connected to and dependent on, without risk to their health or wellbeing.

For all these issues the UCWA looks forward to reading the findings of the Independent Scientific Panel Inquiry.

### **Summary**

The UCWA appreciates the opportunity to make this submission to the Inquiry. It is our fundamental underlying belief that God calls us into a particular relationship with the creation. A relationship of mutuality and interdependence which seeks the reconciliation of all creation with God. It also makes good economic and political sense to ensure the long-term well-being of our natural world — there can be no security for humanity without a healthy ecosystem.

With this in mind we share our concerns, based in the science we are currently aware of, about the hydraulic fracturing process, particularly as it will impact on Aboriginal people, the climate, human health, biodiversity and water.

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<sup>20</sup> <https://www.tandfonline.com/doi/full/10.1080/00207233.2017.1413221>