

Draft Northern Territory Greenhouse Gas
Emissions Offsets Policy and Technical Guidelines
Submissions received from Individuals

GREENHOUSE GAS EMISSIONS OFFSETS POLICY AND TECHNICAL GUIDELINES – NORTHERN TERRITORY OFFSETS FRAMEWORK

Consultation Draft September 2021

I have been heartened by the recent developments overseas, within Australia and in the Northern Territory where the risks of climate change have gone from being a focus of the scientific / environment community to now being acknowledged by governments at all levels, industry and community groups.

Not only are the serious risks understood, there is growing agreement about the need for urgent, effective action to reduce the release of greenhouse gasses into the atmosphere. Industry groups are now becoming more aware of and vocal about the potential economic, social, environmental, and political consequences of continuing with a 'business as usual' approach.

This view was expressed succinctly in the 9 October 2021 Guardian article entitled: *Business Council shifts climate position to back 50% emissions cut by 2030*¹:

... Big business has thrown its weight behind a 50% emissions reduction by 2030 to avoid a "costly and damaging" game of climate catch-up.

The Business Council of Australia believes a cut of between 46% and 50% on 2005 levels within the decade is pragmatic, ambitious and will drive investment.

"The purpose of our work is to move forward, not engage in an endless debate about issues the nation and the world has moved past," BCA president Tim Reed said.

The council said modelling showed accelerating emissions cuts would leave Australians better off by an average of \$5,000 per person each year by 2050.....

"The momentum for moving towards net zero by 2050 is unstoppable. The pace and scale of change is accelerating globally," its report says.

"Australia is at a crossroads: we can either embrace decarbonisation and seize a competitive advantage in of (sic) developing new technologies and export industries; or be left behind and pay the price....

I am therefore surprised and disappointed that this draft Offsets Framework appears to be creating a regulatory environment that might at best result in limited direct offsets and at worst create a smokescreen of indirect emissions offsets – 'offsets' that are in name only.

¹ <https://www.theguardian.com/australia-news/2021/oct/09/business-council-backs-50-emissions-cut-by-2030-to-avoid-damaging-costs-for-australians>

Offset principles

The Offset Principles (p5) require some attention.

1. Offsets must contribute to relevant Territory targets

The overarching target that applies to emissions in the Territory is the NT target of net zero greenhouse gas emissions by 2050. There may also be additional or interim targets set in the future by the NT Government to help achieve this target.(p7)

One relevant target was set when the NT government gave conditional approval for ‘fracking’ in the NT and committed to implementing all the recommendations of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory: *Recommendation 9.8 - That the NT and Australian governments seek to ensure that there is no net increase in the life cycle GHG emissions emitted in Australia from any onshore shale gas produced in the NT.*

Irrespective of which industry emits greenhouse gases in the NT or whether their products and processes result in release of greenhouse gasses elsewhere, the offsets policy should include the full lifecycle; let’s not try to externalise these costs.

2. Offsets must be designed to deliver maximum benefit to the Territory

The benefits offsets should deliver are reduced net greenhouse gas emissions and of course chasing offsets should not result in unacceptable levels of other negative environmental, social, or economic outcomes. Again, only including emissions that occur within the Northern Territory would be unacceptable and may be frowned upon by other Australian or international jurisdictions (like how several of Australia’s important trading partners now view our exports).

3. Benefits of offsets must be additional and secured

I understand this means that the emissions reductions are additional to what the industry is already able to achieve and are sustainable.

4. Offsets must be knowledge-based and design must be responsive

I agree they must work as described and be able to be scaled up or down as needed.

5. Stakeholder engagement, disclosure and transparency is required

Agreed.

6. Duplication of offsets must be avoided.

Agreed.

Regulatory uncertainty

Policy documents such as this should be clear and provide a high level of certainty – for those businesses directly affected, broader industry groups, government agencies, community members and for the Regulators. All need to know what’s in and what’s out and what’s acceptable and what’s not.

The underlined words in the various extracts from the draft framework below confirm that at every stage decision-makers have wide discretion including most concerningly when determining *whether residual emissions are significant*.

Where an emissions offset is considered appropriate, the decision maker for the approval may require residual emissions to be offset as a condition of the approval (an emissions offset approval condition). This may require proponents to deliver on their offset proposal, or may apply different offset requirements than those proposed by the proponent. (p5)

Decision makers will consider this policy in applying an emissions offset approval condition. An offset that is developed and delivered to satisfy an emissions offset approval condition must also satisfy this policy. The policy informs:... (p6)

In general offsets should be applied to a project where significant residual emissions will be produced. Emissions may be produced and identified over periods of time over the life of a project (for example, annually or every five years) or through a more distinct or “one off” emitting event such as land clearing. Residual emissions include any emissions remaining once all reasonable steps have been taken to first avoid or mitigate the production of emissions. Assessing agencies and decision makers are responsible for determining whether residual emissions are significant. (p7)

It is acknowledged that not every emission of a greenhouse gas can be quantified and that by any sensible measure some are insignificant. However, the focus of this Offsets Framework is on (often major) industrial and agricultural projects where all inputs and outputs ought be well known. In these cases objective evidence-based assessments of significance must be made against defined criteria; there should be no scope to use discretion.

Indirect emissions offsets

It would be unacceptable for this Offset Framework to allow businesses to buy their way out of meeting their offset obligations by ‘investing’ in research and development of technologies or processes that may possibly one day, somewhere, support and contribute to emissions abatement (including possibly carbon capture and storage).

It may also be that whatever amount a business is required to ‘invest’ in Indirect Emissions Offsets research will result in their being eligible for a refundable research and development tax offset through the Commonwealth’s research and development tax incentives scheme. So a potential offset of their offset costs, paid for by taxpayers.

Research and development into new ways of abatement ought be encouraged through other avenues but certainly not at the cost of real reductions in the net release of greenhouse gases – it should not be included in this Offsets Framework.

Carbon capture and storage (CCS)

On the issue of CCS I can do no better than to quote Andrew (Twiggy) Forrest.

In the 4 October 2021 Guardian article entitled: *Andrew Forrest criticises use of carbon capture and storage saying it fails '19 out of 20 times'*²:

"You know, in my own home state of Western Australia, we have some of the biggest gas developments in the world who've been granted permission to develop on carbon sequestration,"

"And it failed. And that's quite normal around the world.

"So to suddenly say, well, carbon sequestration, we're going to wave a wand, it's going to work reliably. Well, you know that, actually – if you're a realist – is a bridge way too far.

Conclusion

Should the fossil fuel industry's and government's wishes for a gas-led 'recovery' (from a non-existent economic crisis) in the NT become a reality, and gas and oil extraction through conventional and unconventional means expand to their full potential, no level of direct offsets will enable the NT to meet its greenhouse gas targets.

Offsets should rightly be seen as ways to reduce the net release of gasses associated with current projects, and to 'green' new ones in the short-term. They should not be seen as a means to enable new and inherently dirty industries, which have no social license and only a short economic life (such as gas) to start up.

Clearly, direct offsets would be unable to balance emissions from the new gas industries so pretend indirect offsets are being considered as a way to try to greenwash this industry.

Again, I can do no better than to refer to Mr Forrest³

Forrest told the podcast it was a "cop out" for heavy emitting companies to put in place net zero targets for 2040 or 2050 in the absence of short-term pledges to greatly reduce carbon emissions.

He said such targets might be suitable for governments but for heavily polluting industries long-term pledges were "really pretty meaningless".

"All of us need to pick up the challenge right now," he said.

He also told the podcast that the use of carbon offsets to hit emissions targets was not going to be enough to meet the global climate challenge to keep the average temperature increase below 2C.

Forrest said Fortescue would rely on carbon offsetting in the short term to meet its own targets "because we simply haven't put the multi-billion dollar investment into place yet".

Once that occurred he said the company would not use them at all.

"We're not an advocate of offsets," he said.

"If you've got absolutely nothing else, then certainly look at them, but make sure they're very sincere because they can be unreliable, and there are scams in the offset industry."

Thank you for this opportunity to comment on this Consultation draft.

Andris Bergs

Tiwi

11 October 2021

² <https://www.theguardian.com/australia-news/2021/oct/04/andrew-forrest-criticises-use-of-carbon-capture-storage-saying-it-fails-19-out-of-20-times>

³ Ibid

From:
To: [environment](#)
Subject: [Submission](#) on the draft "Greenhouse Gas Emissions Offsets Policy"
Date: Sunday, 10 October 2021 7:21:46 PM

Dear Northern Territory Government,

I lived and worked as a physiotherapist in Darwin for 4 years from 2005-2009 and consider myself extremely lucky to have explored much of the remote and unique wilderness that the Northern Territory offers. Now living in Melbourne with two small children, I am passionate about the environment and deeply concerned about the projected impacts of anthropogenic climate change. I believe that the intergenerational injustice that we are inflicting on our children and all future generations by our collective greed and relative inaction on reducing emissions is morally irresponsible.

I have read several scientific reports that explain how the NT is particularly susceptible to climate change. If climate change continues unchecked, by 2070 Darwin will have 308 days a year hotter than 35 degrees celsius. With the humidity in Darwin, this could well make Darwin uninhabitable for parts of the year.

Due to my love for the natural environment, concern for the futures of our children, and fear of the projections for the NT itself, I therefore strongly oppose fracking and other forms of extraction of fossil fuels, especially in the Northern Territory. The recent UN Intergovernmental Panel on Climate Change report showed unequivocal evidence about the dire projections of climate change and urgent need for genuine climate action that significantly reduces emissions this decade. In addition, the International Energy Agency has clearly stated that no new gas, oil or coal projects should be commenced if we are to have a chance at keeping global heating to less than 1.5 degrees celsius.

I have considerable concerns about the Territory's draft 'Greenhouse Gas Emissions Offsets Policy', largely because it offers too many loopholes for gas companies to avoid their moral responsibilities regarding emissions resulting in climate change. For example, it does not require gas companies to offset their life cycle greenhouse gas emissions. The Draft Offset Policy also leaves offset requirements up to the relevant government decision-maker and opens the door to carbon capture and storage (CCS) being recognised as "indirect offsets". To date, CCS has not been proven to be an effective way to meaningfully reduce emissions.

I therefore respectfully request that the draft 'Greenhouse Gas Emissions Offsets Policy' be redrafted with:

- 1) All life cycle emissions to be estimated and genuinely offset in accordance with recommendation 9.8 of the Pepper Inquiry;
- 2) All references to 'indirect offsets' removed;
- 3) An explicit statement that carbon capture and storage is not a recognised category of offset;
- 4) A clearer statement that all life cycle emissions (scope 1, 2 and 3 emissions) must be offset.

Preferably, however, I urge relevant parties to block fracking for gas in the NT

from proceeding. The only way to really ensure that we progress toward net-zero emissions is to stop emitting greenhouse gasses in the first place. Surely new projects such as the Sun Cable solar farm can be considered as alternative investments for the future of the Northern Territory.

With thanks for your time and consideration.

Kind regards,

Dr Amy Hiller

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Dear Ministers and Policy Advisors,

I fell in love with Darwin 10 years ago when I first moved here. There is much to love about Darwin and the top end but the build-up is not one of them. Much of the year is already unbearably hot. It already feels like we live a marginal existence in Darwin totally dependent on electricity for aircon in order to survive through the hot months – that is if you are privileged and can afford the energy bills.

I was nine months pregnant last year during the hottest November on record and during the 5-hour power outage. The heat was so extreme and I was unable to escape that I was seriously worried for my health and that of my unborn baby. I am worried that year round we will be hunkered down in aircon unable to go out during daylight hours or that we will have to move interstate and that my daughter won't be able to live in the place where she was born.

The temperature rise predictions for Darwin are frightening and threaten our ability to live in the territory within the coming decades. This is an existential crisis for Territorians and I feel the government is making poor decisions and bad policy that exacerbate the climate crisis that we are in.

The state of the climate is dire and we need to cut emission drastically and immediately. **I urge the government to stop all approvals for new fossil fuels including gas.** The emission load that proposed gas projects will add to the atmosphere are recklessly dangerous especially given the severe impacts climate change will have on Territorians.

Despite the majority of Territorians being against fracking the current Gunner Government seems determined to support the gas industry while also trying to claim that all 135 recommendations of the Pepper Inquiry have been implemented.

I am writing now to say that the GHG Emissions Offsets Policy in its current drafting does nothing to address recommendation 9.8. It is a seriously flawed and flimsy policy and requires drastic changes. Below are some of the issues I have identified.

- The new category of carbon offsets that the NTG has invented and termed 'indirect offsets' are not acceptable and all reference to 'indirect offsets' should be removed from the policy. It is reckless to allow companies to pollute now on a flimsy hope that years from now they might be offset.
- The inclusion of investment in CCS as offsets is unacceptable under any circumstances. The offset policy must explicitly rule out offsetting with investment in CCS technologies.
- In its current draft the policy gives far too much power to individual decision makers – and ultimately the Environment minister – to determine whether or not offsets are required and how much companies will be required to offset. This is alarmingly weak policy and totally lacks transparency and accountability. The redrafting this policy should outline

a clear objective method for determining when offsets should be applied and the amount of offsets that are required. Leaving it to a government department or minister to decide on offsets on a project-by-project basis with a loose reference guide is not acceptable.

- To meet recommendation of 9.8 of the Pepper Inquiry, which this government has repeatedly committed to, all cycle emissions generated in Australia including scope 1,2 and 3 emissions from onshore gas projects must be fully offset using genuine accredited offsets.
- I am in full agreement with the 60 acclaimed climate scientists and experts who recently wrote in an open letter stating the following, “Chief Minister Gunner, for you to honour your commitment the NT offset policy must require all lifecycle Greenhouse Gas emissions in Australia from any onshore gas produced in the NT including scope 3 emissions to be fully and genuinely offset... If this cannot be achieved, a critical recommendation has failed and fracking should not proceed.”
- In its current drafting the policy constitutes a backflip on the governments repeated commitment to implement all 135 recommendations from the Pepper Inquiry as it fails to guarantee *“that there is no net increase in greenhouse gas emissions emitted in Australia from any onshore shale gas produced in the NT”*. I urge the government to redraft this policy so as to ensure this commitment is upheld.

This is a crucially important piece of policy and needs to be the most robust offset policy ever seen. The future of our children and all Territorians absolutely depends on it.

Thank you,

Alice Nagy of Rapid Creek.

Dear Humble Servant,

I am writing regarding the possibility of the NT opening up to gas fracking. The job of government is to weigh up probable costs and benefits of any action. The probable benefits of fracking to Territorians one assumes is in terms of tax revenue and jobs. The costs are flow on effects to our largely untarnished natural environment. Fracking threatens our aquifers, rivers and water supply for both irrigation and communities.

This is not a simple balance sheet however. Fracking is imprecise and appears to impact hydrogeology and aquifers differently in every situation. At the same time the output also is not guaranteed, and the financial assumptions underlying gas extraction are unclear in an increasingly decarbonising world market.

This of course brings us to the Elephant in the room; an Elephant that appears poised to sit on us at any time. We know very well what the costs will be of putting more gas into the atmosphere. As Darwin swelters through some of the hottest days on record while gearing up for another cyclone season, it is easy to imagine the stresses that the Territory will be under in a changing climate.

Rather than sending more greenhouse gases to be converted into an atmospheric blanket we should be investing in the abundant renewable energy that pounds the territory every day. Indeed, I applaud the government in their recently announced plans for 50% renewable energy for the top end. Such a move though will be seen as pure hypocrisy if they do so while extracting and sending gas elsewhere to be burnt.

This is the issue that I find most alarming in current legislation—the myopic disregard for life-cycle emissions. Whether gas is burned in an Alice Springs BBQ or an overseas power plant, the CO₂ produced will still end up exactly where we don't want it—further heating our atmosphere. It may be argued that this action can be offset, but our ability to offset is near capacity, and carbon capture and storage a pipe dream. Moreover, at our current point in human induced climate change these actions are like turning the bilge pump on overdrive when your boat is already sunk.

While I'm sure there are many bean counters and lobbyists pointing out the potential money to be made, I think we also need to recognise what is at stake. Climate change threatens so many of our proven industries; tourism, fishing, agriculture.

I am asking you to reconsider your support for gas fracking, and to back this up by reimposing the moratorium on the fracking across the territory.

Thank you for your time.

Dr Samuel D. Arman

From:
To: [environment policy](#); [Chief Minister](#)
Subject: Submission regarding the Draft GHG Emissions Offsets Policy and Technical Guidelines
Date: Sunday, 10 October 2021 6:26:22 PM

Dear Minister and Chief Minister,

Please accept and give consideration to this submission on your government's Draft Greenhouse Gas Emissions Offsets Policy and Technical Guidelines.

I am a resident of the Nightcliff electorate. My partner and I are currently looking to purchase a home for our family. I work as a child, couple and family therapist and my partner works as a cardiac nurse. We have devoted our working lives to these professions because we care about making a contribution, no matter how small, to a community, a society and a humanity that can be aware of and tend to the interests of all.

While we work one person or family at a time for the betterment of society, your decisions to pursue fracking in the Beetaloo basin deeply concerning given it could increase Australia's annual GHG emissions by up to 20%. I am deeply aggrieved by the damage your decisions will have, not only to the communities we strive to care for, but also to those that stretch across our country, our planet and the future. To learn that on top of this you are seeking to water down or completely ignore your commitments to offset these emissions through your Large Emitters Policy and the measures you propose in the Draft Offsets Policy is staggering.

A central tenet of the work I do is to try and understand with compassion the circumstances and experiences within which a person acts. While I acknowledge that I do not have first-hand experience of the pressures that play upon decision making as a government minister, I nevertheless find it very difficult to view aspects of your Draft Offset Policy to be anything other than deliberate decisions made in bad faith. These include:

- Your inclusion of "Indirect Offsets" as a valid form of emission offset. I find the inclusion of 'Indirect Offsets' very concerning as it allows gas companies to pollute now on the hope that maybe a technology might be developed in the future to draw those emissions out of atmosphere. That technology could be decades away or research and development could completely fail - as all current carbon capture and storage projects to date have - at which point it's too late. That is not off-setting emissions.
- Your failure to include your commitment to recommendation 9.8 of the Pepper Inquiry.
- Your failure to address all emissions across the three scopes of the life cycle.
- Your retaining the right exclusively for the relevant minister to determine if offsets are required.

You may rightfully feel that you have acted in good faith and if that is so, I urge you to take on board my submission here and community feedback through this consultation process. If your government drastically redrafts this Policy to reflect community feedback, I will take that as proof that your government is listening to your constituents and acting in the best interests of Territorians. That will show me that your government is making decisions in good faith, this is the transparent and serious action I would like to see.

Specifically, the aspects of the Draft Offset Policy (and the large emitters policy) that as a constituent I am strongly urging you to revise are as follows:

- It must require all life cycle emissions generated in Australia to be estimated and genuinely offset for onshore gas projects, in accordance with recommendation 9.8 of the Pepper Inquiry.
- It must make clear that requiring only scope 1 and 2 emissions from onshore gas projects to be offset is insufficient. All life cycle emissions generated in Australia (scope 1, 2 and 3 emissions) must be offset to comply with Recommendation 9.8.
- All references to “indirect offsets” must be removed.
- It must explicitly state that carbon capture and storage (and research and development for carbon capture and storage) is not a recognised category of offset.

On a personal note, I would like you to know that this has been my first direct contact to representatives in government. With the recent release of the IPCC report calling a "code red for humanity" due to global warming and the increasing natural disasters experience in Australia and around the world I have been informing myself further on the issue. That your government is pursuing new gas projects in the NT is clearly reckless and unconscionable.

I am moved to share my concerns with others in the community and I want to know what you will do to address these concerns.

Thank you for the opportunity to make a submission on this important policy.

Regards,

Chris Stretton

From:
To: [environmentpolicy](#)
Subject: NT DRAFT Greenhouse gas emissions offset policy
Date: Friday, 15 October 2021 9:03:53 AM

The whom it may concern,

I wish to make submission to the NT DRAFT Greenhouse gas emissions offset policy.

In summary.... The latest IPCC report (as well as statements from scientists) states unequivocally that production NEW fossil fuels and the associated increase on Carbon dioxide must cease IMMEDIATELY if the Earth's temperature rise is to be kept below 1.5 degrees. For this reason alone, I believe our government is acting irresponsibly if it continues to support Fracking.

I really care about the Territory ! I have lived with my family in Darwin since 1972 and worked for many years as a Primary School teacher.

In 2007 I began researching the use of solar power, after visiting Germany and seeing solar PVs on many buildings.

We installed solar panels on our home in Darwin in November 2007, and in spite of the high cost at the time we were totally convinced of the possibility of solar power for the Territory....and we have saved quite a lot of money on our power bills.

Since then, we have seen huge progress in PV technology and dramatic decrease in cost have made solar power the cheapest and cleanest form of energy production.

I have taken every opportunity since then to engage with my local government representative as well as the appropriate minister to talk about the benefits of solar and other forms of renewable energy, not only in Darwin but also in communities which rely on diesel for power generation. The benefits of course include clean, green, quiet power generation, as well as employment possibilities for locals.

The Pepper Inquiry in 2018 recommended that Fracking could only safely proceed if there was NO INCREASE in CO2 emissions. Recommendation 9.8 'the NT and Australian governments seek to ensure that there is no net increase in the life cycle of greenhouse gas emissions emitted in Australia from any onshore shale gas produced in the NT.' This is clearly not possible.

I read with concern the letter addressed to the Chief Minister from 60 scientists, about the likely impact of increased fossil fuel developments from the proposed Beetaloo fracking.

Minister Nicole Madison's recent statement that gas companies are taking the challenge to offset emissions seriously and are exploring carbon capture and storage is shocking! A recent communication from Minister Eva Lawler to me said '**Recently, the Chief Minister announced that the Northern Territory Government has partnered with CSIRO, industry and engineering companies to assess the viability of a large-scale low emissions Carbon Capture Utilisation and Storage Hub**'

All reports show that this is extremely ineffective and very very expensive. This unproven technology cannot be relied upon to offset emissions we cause.... It is asking future generations

to pay for our emissions.

If the government follows the expert advice as it has with Covid, it would not be supporting scientifically unproven, expensive methods.

Indeed, it will stop developing new gas fields with rapidly diminishing future markets AND put those resources into renewable energy projects.

All the scientific and economic reports I have read state clearly that the world is rapidly adopting renewable technologies and turning away from fossil fuels.

Having said that, my responses to the draft policy are;

- The policy does not show that increased emissions from Fracking can possibly be offset.
- Indeed fracking companies are not legally obliged to commit to offsets – there is no link between gaining approval and providing ways of offsetting.
- Decisions about offsets seems to be given at the discretion of the current government minister at the time – not a body with scientific knowledge.
- It allows indirect offsets, which have not been proven- I have seen that you do not accept unproven medical advice in relation to Covid?
- From my wide reading/research carbon capture and storage over the past decade, has not been shown to be effective or affordable for such large amounts of CO2. It should not be considered.
- If these changes to the draft policy are not made, I cannot accept the government's stated commitment to reducing emissions.

My friends and contact in many areas share my concerns we worry about the future for the next generations.

Every day, there is news that other states in Australia are moving towards a renewable future by developing green hydrogen for export.... We should be leading the way.

Thank you

Dianne Koser

Environment Policy
Department of Environment, Parks and Water Security
environment.policy@nt.gov.au
cc: chief.minister@nt.gov.au

Dear Sir/Madam,

Re: Greenhouse Gas Emissions Offsets Policy

Thank you for the opportunity to comment on the draft Greenhouse Gas Emissions Offsets Policy. I am a long-term resident of the Territory having moved here in 1980. I have lived in Alive Springs, Tennant Creek and Darwin. Darwin is where I have raised a family and my adult children are residents of the Territory, living in the Darwin and Katherine Regions.

While I can see potential benefits of being able to offset unavoidable impacts of development, I think the current proposal for greenhouse gas emissions is seriously flawed. The policy reads as a way to legitimise the operations of the fracking industry and avoid the recommendations of the fracking enquiry.

The adoption of indirect offsets raises the spectre of proponents contributing funds but these not actually resulting in offset of greenhouse gases. I am not aware of anywhere else on the globe when indirect offsets are considered as legitimate. Indirect offsets appear to be a red herring to legitimise emissions with no commitment to actually offset those emissions.

Globally, research into carbon sequestration methods has consumed million and millions of dollars with little to show for the investment. While we would all like industrial scale sequestration (as opposed to tree planting) to work, failure to actually offset emissions and diverting resources into research has the appearance of a smoke screen to avoid fully implementing the recommendations of the fracking enquiry.

Should indirect emissions be permitted, there are serious flaws in the eligibility criteria for indirect emissions offsets. "Reasonable confidence" that R&D will achieve the proposed benefits is so open to interpretation as to have little meaning. The requirement that R&D must be undertaken by a third party and not the proponent or a related entity is also fraught with challenges of interpretation. Could a competitor fracking company argue they are unrelated and a research subsidiary of one become the beneficiary of funding. Time and time again we see a lack of independence between funder and receiver of funds. In a political environment which is clearly pro-fracking, these loosely worded policy statements allow manipulation whereby the policy becomes a legitimisation to avoid the recommendations of the fracking inquiry.

I request indirect offsets be abandoned and that the intent of the fracking enquiry, particularly with regard to recommendation 9.8 be implemented.

Regards



David Liddle

15th October 2021

Dear Minister

Thank you for the opportunity to comment on the recent Draft Greenhouse Gas Emissions Offsets Policy released for consultation.

I am a proud long term resident of Darwin. I am a mother of two small children, both of whom were born in the NT. My entire extended family live here, we adore this place. Our family are keen bushwalkers and campers, we live for mud crab season and weekends on the boat fishing. My dearest wish for my children and my nieces and nephews is that they get to enjoy the unique and incredible lifestyle that this place offers into their adult hoods. I am deeply concerned that this government's dogged pursuit of new gas developments puts their future at risk.

I was most distressed when the IPCC issued a 'code red for humanity' recently – and I am dismayed by the lack of actual change in government policy around new fossil fuel projects. The International Energy Agency (IAE) has said that globally there should be no new investment in oil, gas or coal assets after 2021 if we are to reach net zero emission energy by 2050. The impacts of climate change are already being felt and suffered by many in the NT. Increased heat related deaths already happen. Mangrove die back is already occurring. The temperature predictions for Darwin based on 1.5 degrees and above are alarming. I really don't see how we could continue to live here when Darwin begins to experience 176 days above 35 degrees – anticipated to occur when my youngest son is approaching his 30s.

I implore the Northern Territory Government to do all they can to limit the warming to 1.5 degrees or under. I was very disappointed to read the draft offsets policy, which, respectfully, appears to completely shirk the commitment made by the NTG to uphold all Pepper Inquiry recommendations. I have a number of concerns in particular:

1. The Draft Policy places full power in the hands of individual decision makers as to whether life cycle emissions are significant enough to require offsetting. Clearly the offset policy must be binding – it must ensure all life cycle emissions from fracking will be offset. Under its current wording, the regulator could decide that the emissions do not warrant offsetting at all or only partial offsets are required. This is completely unacceptable at a time when all the leading scientific bodies are imploring governments world-wide that if we are to limit warming to 1.5 degrees – no new fossil fuel projects can be undertaken.

2. Indirect Offsets: I am incredibly concerned about the new term coined in this policy – Indirect Offsets. This feels like a blatant loophole that has been invented when policy makers realised the amount of emissions created by this industry will be impossible to offset. If the life cycle emissions produced by this industry cannot be fully offset using Australian Carbon Credit Units, then this industry cannot be pursued. If the Government cannot ensure all emissions are offset in this way, with ACCU's, then they are not meeting the standard of Recommendation 9.8 of the Pepper Inquiry and are back flipping on a commitment they have made numerous times publicly. A commitment that saw them elected.
3. Carbon Capture and Storage: from my understanding, there has never been a single CCS facility in the world that has successfully achieved its offset targets. It is unacceptable for the NT government to rely on this controversial technology at a time when there should be absolutely no new emissions being created whatsoever.

I am asking that the policy be rewritten to reflect the following:

- The policy must concretely bind all gas companies to offset their lifecycle greenhouse gas emissions
- The term “Indirect Offsets” must be removed, and all offsets must be identified as Australian Carbon Credit Units
- The policy should explicitly refer to recommendation 9.8 of the Pepper Inquiry
- The policy should be universally binding and not left to the discretion of the regulator whether it comes into effect

Finally, once this policy has been redrafted, please open it back up for consultation once again. Offsets are a last resort mechanism, for those last remaining emissions that can't be avoided or reduced - they are not designed to allow for new or expanding fossil fuel projects. I implore the NT Government to do all it can to protect us from spiralling beyond 1.5 degrees of warning. That means holding fossil fuel companies to account and ensuring that they genuinely and completely offset every single emission they produce.

Thank you for considering my submission.

Regards,
Cara Brown (Coconut Grove)

From:
To: [environment policy; Chief Minister](#)
Subject: Draft Offsets Policy feedback
Date: Tuesday, 5 October 2021 9:55:51 AM

I am a primary school teacher and mother of two children. My interest in this issue is highly personal as I am deeply concerned about the future of my children. As someone who recently moved to Darwin I have experienced the intense heat here and have spoken with many long term residents who are alarmed by increasing temperatures. As you must know the last two summers of 2018-20 were the hottest ever recorded in the NT. These tangible effects of climate change are being felt throughout our country along with extreme droughts, fire seasons, floods and more extreme weather in general. With the latest IPCC report I understand that drastic changes are needed now to address the climate crisis. Drastic change excludes beginning any new gas projects such as the Beetaloo Basin which could increase Australia's carbon emissions by as much as 20%.

My key concern upon reading the Draft Offsets Policy is that it will be used to support polluting projects like those planned for the Beetaloo Basin and Barossa Gas Hub. I believe this policy will allow government to swerve away from taking meaningful action on climate change whilst making fossil fuel projects more palatable to the increasingly concerned public. Given the seriousness of global warming we now need to stop carbon from getting into the atmosphere not offset fossil fuel projects.

You have stated that the policy is to be used as a tool to guide offsets and decarbonise industry in the Territory. However I would like to illustrate a number of issues that will restrict your policy from achieving this aim. Firstly, this policy comes into play if a decision maker deems that offsets are required. This discretionary power is not acceptable, emissions should be regulated by hard data not discretion. Secondly, the policy does not refer to recommendation 9.8 of the Fracking Inquiry. How can this be? It was a clear promise by the Gunner Government. Only scope 1 and 2 emissions from onshore gas projects are included in your policy. This is insufficient and ALL life cycle emissions must be included as promised. Thirdly, "Indirect offsets" includes funding research and development into technologies that may reduce emissions in the future. This is outrageous and undermines the integrity of the NT carbon market. Lastly Carbon Capture and Storage is recognised as an "indirect offset" category, however this method is controversial, unproven and expensive.

I reiterate calls made by scientists in an open letter to Chief Minister Gunner recently that: "Offsets are not a real solution. We should not be allowing fracking to go ahead in the first place." As it stands the Draft Offset policy must be redrafted to include all life cycle emissions and all reference to indirect offsets must be removed. Anything short of this will be a backflip by the Gunner Government's commitment to ensuring there is no net increase in emissions from the Territory's onshore shale gas industry.

Kind regards,

Jane Emery

Moil, N.T

14 October 21

Dear Department of Environment, Parks and Water Security,

We are writing this submission on behalf of our four beautiful grandchildren who all live with us here in Darwin. Our grandkids are all under five years of age and it is they who will suffer the consequences of poor government policy – such as pursuing Beetaloo Basin gas developments and the *Draft Greenhouse Gas Emissions Offset Policy*.

We are long term Darwin residents and love everything the NT has to offer, especially camping with our grandchildren. We live for the long weekends when we can get away with them and relax and have fun in the beauty of Litchfield, Nitmiluk, Edith Falls and Berry Springs. Our camper trailer is packed and ready to go as soon as the dry season comes around.

But now we are getting more and more concerned about the decades to come and what the Territory will be like for our grandkids. We have seen the climate change in our own time living in Darwin. We remember when the temperature never got above 32 degrees. 32 and sunny, that was our constant. Now we have personally noticed the temperatures climbing and the science says the next decades will be worse and worse. Our youngest grandson is not yet one year old – when he is 30 and thinking about kids of his own Darwin is predicted to have three months of the year over 35 degrees. Once temperatures hit 35 degrees and humidity reaches 75% this actually becomes dangerous to human health as the body cannot cool itself down and this is when vulnerable people will die from heat stress. That is not a likeable, let alone livable Territory. This is not the legacy we wish to leave for our grandkids, but it is the legacy the Gunner government is proposing.

We saw that the International Energy Agency (IAE) declare there can be no new investment in fossil fuels including gas after 2021 if we are to reach net zero by 2050. We saw this year the IPCC declare a 'code red' for humanity. We see the opportunities for renewable energy industries in Darwin and cannot understand the short-sighted plans to frack gas from the Beetaloo Basin. We were some of the labour voters who trusted Chief Minister Gunner when he promised no fracking would occur in the Territory until all Pepper Inquiry recommendations were implemented in full. So it is with a real sense of anger and betrayal that we write this submission regarding the Draft Offsets policy.

Our key issues are that:

- The draft policy is weak and vague. The draft policy in its current form will not prevent worsening dangerous global warming caused from fracking the NT. This draft policy is not in line with the promised Pepper Inquiry recommendation. It does not require gas companies to estimate their life cycle emissions, it does not require gas companies to offset their life cycle emissions and it does not require gas companies to offset their scope 3 emissions.
- The draft policy provides no transparency and we find it very concerning that individual decision makers have full power to determine whether or not offsets should be required and how much companies will be required to offset. There should be a clear and rigorous, objective process that is followed to determine these outcomes. And this process must absolutely fulfil Pepper Recommendation 9.8 – that all life cycle emissions generated in Australia must be estimated and genuinely offset for onshore gas projects.
- We are seriously concerned with the inclusion of “indirect offsets” in the policy. Perhaps this category of offsets should be better known as “Gunnery Backflip Offsets” category. The mind boggles that senior Ministers and policy advisors actually think they could

get away with such utter garbage as gas companies paying for R&D into expensive and unproven technologies that they have “reasonable confidence” might, one day, hopefully offset other future emissions. If we weren't in a climate crisis this would be laughable. The indirect offsets category must be removed from this policy. All emissions must be fully offset, preferably using Australian Carbon Credit Units, such as those from Savannah Burning projects up here in the Top End.

We urge the government to redraft this policy to ensure all life cycle emissions from gas projects are fully offset using genuine accredited carbon credits. If this cannot be achieved, then the government has not delivered on its promise to implement all 135 recommendations from the Pepper Inquiry and the onshore gas developments cannot proceed. We consider the Draft Offsets policy as it currently stands as dangerous to the future of our four grandchildren – and for the whole of the Northern Territory.

Sincerely,

Nelson and Loretta Brown
Darwin City

From:
To: [environment policy](#)
Cc: [Chief Minister](#)
Subject: Draft Offsets Policy
Date: Sunday, 3 October 2021 6:02:59 PM

I am a mother, grandmother and school teacher and I am deeply concerned about the future of our planet, that my children, grandchildren and succeeding generations will be inheriting as a result of climate change. Although, I am not a resident of the Northern Territory, I have children and grandchildren who are, and I believe that the Beetaloo Gas Proposal has far reaching potential to increase global carbon emissions and to entrench the gas industry in Australia.

My position is that the Beetaloo Basin or any other gas projects in Australia should not go ahead. The Intergovernmental Panel on Climate Change and the International Energy Agency have warned that drastic changes are needed to address the climate crisis. The planned production of gas in the Beetaloo alone could increase Australia's greenhouse gas emissions by as much as 20%.

Additionally the Beetaloo should not go ahead, due to the undermining of the traditional owners opposition to the development and other disastrous environment problems caused by fracking.

However, given that the Gunner Government has decided to proceed with Beetaloo project, despite the overwhelming negative climate, environmental and climate projections associated with the project, I am compelled to comment on the government's flawed Draft Offsets Policy.

Chief Minister Gunner has promised to offset the full life cycle carbon emission of the project, however the draft policy does nothing to ensure that processes, actions and accountability will be implemented for this to occur.

Some problems with the Draft Offsets Policy are:

It does not refer to recommendation 9.8 of the Pepper Inquiry on Fracking which recommended that any gas projects should only proceed with full life cycle carbon emission offsets.

It does not require gas companies to offset their life cycle greenhouse gas emissions.

It leaves up to the discretion of the relevant government decision-maker whether offsets are required at all, and for what emissions. For example, it would be possible for a decision-maker to say that offsets are not required at all for an onshore shale gas project, or that only offsetting of scope 1 (upstream) emissions is required. Such an outcome would be inconsistent with recommendation 9.8.

It enables offsets of a very low quality and questionable validity, including through the invented category of "indirect offsets", which are not recognised anywhere else in the world.

It opens the door to carbon capture and storage (CCS) being recognised as an "indirect offsets" category. Carbon capture and storage is unproven and extremely expensive. It is a method of further entrenching the gas industry, not moving away from fossil fuel extraction.

The Draft Offsets Policy might enable gas companies to say that their expenditure on unproven CCS research and development "offsets" their exorbitant greenhouse gas emissions. The Northern Territory Government should not accept CCS, or research and development about CCS, as a category of offset.

The Draft Offsets Policy (and Large Emitters Policy) must be completely redrafted as follows:

It must require all life cycle emissions generated in Australia to be estimated and genuinely offset for onshore gas projects, in accordance with recommendation 9.8 of the Pepper Inquiry.

It must make clear that requiring only scope 1 and 2 emissions from onshore gas projects to be offset is insufficient. All life cycle emissions generated in Australia (scope 1, 2 and 3 emissions) must be offset to comply with Recommendation 9.8.

All references to "indirect offsets" must be removed.

It must explicitly state that carbon capture and storage (and research and development for carbon capture and storage) is not a recognised category of offset.

All of these changes must be made to the Draft Offsets Policy. Otherwise the Gunner Government's commitment to ensuring that there is no net increase in emissions in Australia from the Territory's onshore shale gas industry will not be honoured.

Offsets are costly, unproven, and impossible to implement to achieve zero emission. I would like to reiterate calls made by independent scientists in an open letter to Chief Minister Gunner recently, that: "Offsets are not a real solution. We should not be allowing fracking to go ahead in the first place."

Yours sincerely,
Sonia Emery

From:
To: [environment policy](#)
Subject: Draft Offsets Policy
Date: Wednesday, 13 October 2021 8:40:38 PM

Dear Minister

I'm a long term resident of Alice Springs and I'm writing to express my deep disappointment that the NTG is allowing the Fracking of the Beetaloo Basin. The emissions from which will directly propel us down the path of climate crisis. I am deeply connected to this place having spent the last 10 years living here. My children were born here and I run a thriving business here. I want to continue creating my life here but the climate crisis threatens that. In particular the Fracking of the Beetaloo Basin will confound the entire nation's attempts to get serious about carbon emissions reductions. We need and deserve genuine climate action and carbon emissions reductions.

I'm asking that the Draft Offsets Policy be rewritten to give Australia the chance to become a responsible member of the international community and make real efforts towards emissions reductions not falsely gained by offsets.

As such the policy must require all life cycle emissions generated in Australia to be estimated and genuinely offset for onshore gas projects

And therefore

- All references to "indirect offsets" must be removed.
- It must explicitly state that carbon capture and storage (and research and development for carbon capture and storage) is not a recognised category of offset.

Thank you for your consideration of these sentiments which have already been made clear by many voices in the last two NT elections which were won off the back of anti Fracking promises.

I hope the NTG will determine to uphold its election promises and see the role it can play in affecting policy for the public good and work towards genuine climate action and emissions reduction so that we can all continue to enjoy the magic of the NT.

Sincerely

Estelle Roberts

From:
To: [environment policy](#)
Cc: [Chief Minister](#)
Subject: Submission - Draft Offsets Policy
Date: Friday, 8 October 2021 1:00:45 PM

To whom it may concern,

My name is Fiona Dorrell, and I currently work as the Acting Executive Director of a not for profit arts organisation that seeks to contribute to the cultural life and cultural tourism sector in the Northern Territory.

My father was born in Katherine during the seventies, and while I was born in Sydney, I developed an infatuation with the NT's wild open spaces and diverse cultures from early adulthood and moved to Alice Springs in 2013 and then Darwin in 2020.

I would like to settle down and buy my first home here, but I have serious anxieties about the liveability of the NT over the coming decades. The just-released sixth IPCC report revealed to me that no new fossil fuel projects can begin if we are to keep to global 1.5 degree warming targets.

The NT Government's plans to develop new gas projects in the Beetaloo Basin give me real fear that we are not on track to avoid the worst of irreversible climate change. I feel deeply concerned that these projects will actively undermine global efforts to achieve Paris Agreement targets and act on the Climate Emergency.

I am afraid that our failure to act will lead to more days of unbearable heat, less rain, more catastrophic fires and cyclones, and further species extinction. I love the lifestyle I have living in the NT and the unparalleled access I enjoy to the environment here, but I worry about what our future will look like if we don't take stronger action now.

I am impressed with government investment in renewable energy exports, in tourism, and in our arts and culture. This investment shows vision and strong leadership, and gives me confidence about my future here.

I am less impressed with the recent Draft Offsets Policy and the Large Emitters Policy which I understand attempt to establish how offsets will compensate for emissions produced by new gas projects planned for the Beetaloo Basin.

I am deeply concerned that this draft policy fails to ensure emissions from new and existing gas projects are genuinely offset.

I'm calling on policy makers responsible for developing this legislation:

- To require life cycle greenhouse gas emissions to be estimated and genuinely offset for all new and existing gas projects.
- To comply with all recommendations of the Fracking Inquiry.
- To apply global standards to the definition of 'offsets' and remove all reference to 'indirect offsets'.
- Not to recognise Carbon Capture Storage as a category offset.

I support the statement made by independent scientists in a recent [open letter to Chief Minister Gunner](#) that "offsets are not a real solution. We should not be allowing fracking to go ahead in the first place."

But if the NT Government is to ignore the overwhelming evidence produced by leading global scientists, this Offsets Policy **must provide genuine offsets for all gas emissions.**
If our emissions cannot be honestly offset, then fracking must be abandoned.

I thank you for receiving my letter and for your action and leadership on my behalf.

Warm wishes
Fiona Dorrell

Draft Greenhouse Gas Emissions Offsets Policy Submission.

It is with some reluctance that this submission is made. The reason being that, along with the many other submissions made to this and other Departments of the NTG over many, many years, it remains simply a thinly disguised attempt to be able to say that the Government has 'consulted' with the public; when everybody knows that it will be consigned to the electronic rubbish bin without ever being read. In some respects the whole process is closely parallel to the so called 'consultation' that preceded the destruction of the woodland at Lee Point. It mattered not that 80% of citizens are opposed to the DHA development, the Minister says that it is proceeding regardless. So much for 'listening' to the people. However, it is important that citizens are aware, that, notwithstanding legislation requiring offsets to be pursued, if the GHG polluter chooses not to do so, as is the case with INPEX, nothing will be done to challenge them. The policy, as drafted, will cause the proponents of Beetaloo and Santos no trouble, for, if history is followed, they will just disregard it anyway.

The GHG emissions landscape has altered significantly with the new LNG facilities reaching full production, contributing about a third of NT total emissions. Darwin LNG [now Santos] did put in place an offsets program based upon the WALFA project which has achieved a cumulative total abatement of over 2 million tonnes CO₂e. It cost Darwin LNG about \$10 per tonne: the price of an ACCU at auction [in 2021] is now close to \$30/t. Back in 2012 there was a clear acceptance by INPEX of a commitment to offset what were expected to be 7 million tonnes per annum [mtpa] of CO₂e. The project was assessed under the EPBC Act and INPEX was [legally??] obligated to develop a management strategy outlining the measures and offsets it proposed to reduce GHG before production commenced. Three years ago in 2018, the Ichthys project commenced emitting ~9 mtpa without any discernible offsets whatsoever in place or foreshadowed. What would have cost about \$9 million had INPEX done the right thing, will now cost something approaching \$270 million each year. In light of the failure to prosecute INPEX for publishing information in contravention of the Trade Practices Act, failing to comply with the EPA 2019, complete disregard of the assurances given under their EIS, [[click here](#) for more details] why should anyone believe that the NTG would challenge the Beetaloo and/or Barossa developments when they publish their fictitious GGAP?

The good news is that most of the big ideas that create the change required to grow the economy in recovery, while mitigating climate change, [already exist](#). Waiting for someone else to start the process will result in stagnation and perhaps irrevocable global warming. A number of strong prospects exist in the NT for the abatement of GHG emissions., including:

- Mineral Carbonation sequestration;
- Micro algal sequestration of CO₂ for production of biofuel and biochar feedstock;
- Reduced methane emissions from livestock;
- Increased biosequestration in soils and vegetation by harvesting weeds instead of burning;
- Blue carbon production from seaweed growing and mangrove rehabilitation, and
- Geopolymer cement.

The major impediment in the development of these projects is the availability of seed funding to perform feasibility trials and complete the very complex documentation necessary for adoption of a new methodology by the CER. There are provisions under the NT Environmental Protection Act 2019 for GHG polluters to pay an environmental levy and/or contribute to a protection fund that could be used to develop a portfolio of GHG abatement projects. Indeed, should the offsets policy be properly implemented and the polluters buy ACCUs, the addition of hundreds of millions of dollars to the NT economy is expected.

Wayne Wood.

Hannah Ekin

Hon Michael Gunner
GPO Box 3146
Darwin NT 0870

Ciccone
0870



Dear Michael Gunner,

The large emitters & offset policies that were just released as drafts are highly flawed and will not be enough to ensure there is no net increase to NT's emissions as a result of opening up the Belvaloo Basin & the Barossa for gas extraction.

Please do not backflip on your commitment to recommendation 9.8 of the pepper inquiry - the Territory is highly vulnerable to climate change impacts & we need to take emissions targets seriously.

Khalley, Hannah.

From:
To: [environment policy](#)
Cc: [Chief Minister](#)
Subject: Submission to the Greenhouse gas emissions offset policy and guidelines
Date: Friday, 8 October 2021 10:21:20 AM
Attachments: [Offsets submission October 2021.docx](#)

Please see attached response to the offset policy.

I fail to see how our commitment to a low carbon economy and extensive government support for massive fracking projects can co-exist. It is my wish, along with many in the NT and across Australia, that fracking should not go ahead at all, but investment be made in renewable energy. These sources of energy are becoming more cost effective, more reliable and are proven technologies, unlike the indirect offsets proposed to be allowed in this draft policy.

Heather Ferguson

Greenhouse Gas Emissions Offsets Policy and Technical Guidelines

Northern Territory Offsets Framework, 8th October 2021

I have loved living in the NT since I got off the plane 9 years ago. I loved how the daily temperature on the news was a maximum of around 33-34°C every day, virtually year-round. Unfortunately, now the daily maximum is more like 35-38°C. Every night, I watch in despair as the INPEX plant across the harbour burns gas with a bright orange plume that lights up the night sky, and as outlined by the Intergovernmental Panel on Climate Change, climate change is with us, well and truly.

Our Darwin City Council has declared a Climate Emergency, and now even Scott Morrison is thankfully starting to buckle to international pressure regarding Australia's lack of action on climate change – calls which are growing stronger by the day. It is a very great shame, that it has come to this, and I would like to see the NT Government (NTG) take a more realistic stance against climate change, its prevention and mitigation.

Fracking at all, will increase our emissions drastically. The scale of emissions by proposed NT gas projects is eye-watering, and it is timely to actually do something very real to prevent this. Carbon Capture Usage and Storage (CCUS) is NOT the solution.

CCUS has been proven not to work at scale, either economically or environmentally. The Gorgon experience in WA is the largest CCS project in the world and has failed to meet ANY of its targets and has cost the Australian taxpayer millions. According to the Climate Council of Australia...

“There is not a single carbon capture and storage project in the world that has delivered on time, on budget, and captured the agreed amount of carbon.”

The NTG must know, that CCUS is not a viable option, yet continues to drive Territorians down this fossil fuelled future that will be disastrous for our environment, our lifestyle, our water, and our children.

Against this background, where fracking has no social license, and proposed mitigation is patently ineffective, we now must address the inadequacies of the Greenhouse Gas Emissions Offsets Policy and Technical Guidelines (The Policy). Clearly, the best option is NOT to take Territorians down the road of Fracking and Gas at all. However, given that this appears to be the NTG's path regardless of public opinion, The Policy, must adequately protect us from the inevitable emissions and their impact on our liveability.

1. The Policy is fatally flawed in enabling companies to utilise indirect emissions offsets. These offsets are not real, but a smokescreen to enable moneys invested in research and development in failed technologies like CCS to be counted as carbon offsets. This is despite us knowing that the technology is ineffective and expensive (and these indirect offsets are NOT recognised anywhere else worldwide). Also, moneys invested in this failed technology, reduce the dollars available for investment in

renewable technologies that DO WORK, and are rapidly becoming increasingly more cost effective.

2. The Pepper Inquiry recommended that life-cycle emissions in Australia be completely offset (recommendation 9.8). This was a key promise of the Gunner Government on lifting the moratorium on fracking.
3. The Policy must be read in conjunction with the Greenhouse Gas Emissions Management for New and Large Emitters Policy (Large Emitters Policy) which is also inadequate in being entirely discretionary as to whether larger emitters offset emissions or not and for what emissions. This is simply NOT acceptable to me as a passionate Territorian.

“The NTG MAY consider the use of offsets to compensate for emissions in the assessment and approval stages of a development project”

Why is this not MUST compensate....?

And WHO is the “decision-maker” that appears to have this discretionary power? These inadequacies must be addressed for The Policy to have any credence at all.

4. The Policy does not appear to define when companies must offset emissions or what constitutes “significant” emissions (section 7.1). This is a major oversight and one that potentially renders The Policy meaningless.

The policy vacuum enabling fossil fuel companies to pretty much do as they please, disregarding the already impacting climate change effects, is not acceptable to me and appears to be a broken promise by the Gunner Government. Nothing short of creation of a genuine Climate Act, which specifies emission reduction targets and measures will suffice to help address this lack. Plus, revise The Policy to address the flaws outlined here.

The Policy should:

- Require ALL life cycle emissions to be estimated and offset to be true to the Gunner government promise to comply with the Pepper Inquiry Recommendation 9.8
- Remove any reference to indirect offsets
- Recognise that CCUS has not been effective anywhere in the world and disallow it

In conclusion, I ask the Gunner Government to review and rewrite The Policy to disallow “Indirect Offsets” in particular. Indirect Offsets will NOT mitigate the impact of emissions, and neither will this policy.

I would like fracking to not proceed AT ALL, based on significant evidence worldwide on economic grounds as well as environmental. Investment in renewables provides a more certain outcome for the environment, while producing economic gains for the Territory without the huge negatives of fossil fuels such as shale gas.

Comments on recent NT Offsets policy framework docs

Dr Jeremy Russell-Smith
Professor of Fire Ecology
Research Institute for the Environment & Livelihoods
Charles Darwin University

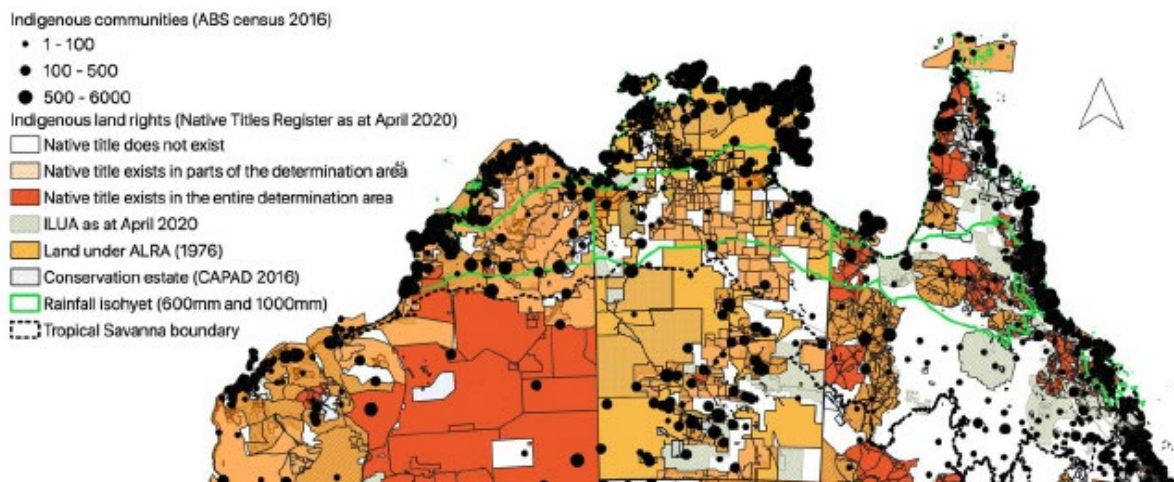
30 Oct 2021

Thanks firstly for making the policy framework documents easily available on the NTG site. Overall, am impressed with how you've gone about this, setting out reasonable principles, and addressing implementation issues mostly usefully in the technical guidance doc. As one who has had long-involvement with successful development and implementation of offset opportunities from fire / land management in northern Australia, may I compliment you on this achievement.

But, for offsets to benefit Aboriginal and pastoral lands, and those who manage them, making up as you note "95% of the Territory's land mass", mostly under different forms of Aboriginal land tenure (Fig. 1), some core details and issues need further thinking about.

Fig. 1: North Australia Land tenure and distribution of Indigenous communities

Source: Sangha KK, Evans J, Edwards AC, Fisher R, Yates CP, Russell-Smith J, Costanza R (2021) Assessing the value of ecosystem services delivered by prescribed fire management in Australian tropical savannas. *Ecosystem Services*, <https://doi.org/10.1016/j.ecoser.2021.101343>



Specific comments

1. **Technical guidelines, Section 7.1: significant emissions**—where it states, “In general offsets should be applied to a project where significant residual emissions will be produced.” Such a statement needs to be quantified and definitions established as to what constitutes ‘significant emissions’. For example, Bristow et al. (2016)¹ show that land clearing of typical woodland vegetation in the Douglas-Daly region emits about 130 tCO₂-e per hectare, at a cost to national and Territory greenhouse accounts financially equivalent to about \$2000 per hectare at today’s market prices. For agriculture developments, the NTG has approved clearing up to 1000 hectare without detailed assessment, which equates to the cost of \$2,000,000 for GHG emissions alone. What amount of land clearing per event constitutes a ‘significant emission’?, and who will reimburse / offset the national and Territory emissions accounts for agricultural and infrastructure development projects (e.g. land clearance associated with the newly completed, and fantastic, Litchfield NP ring-road; gas and powerlines; smaller-scale solar, mango farm developments...)?

2. **Offset principles, Section 3.1: tenure complexity issues**—where, in reference to extent of Aboriginal and/or pastoral lands, it states, “The complexities associated with these land tenure regimes create challenges in securing land for conventional offsets, particularly in perpetuity, making it difficult for many potential offset scenarios.” The complexities of inadequate policy and regulated frameworks in support of enterprise diversification opportunities, and confounding title regimes (e.g. pastoral lease, Native Title), are huge problems for effective engagement of Indigenous and pastoral (including Indigenous) land managers and entities in developing negotiated offsets arrangements. The Abbott Government’s ‘Northern Development White Paper’² promised a pathway to address these matters but, realistically, nothing has progressed. Note also the inconsistent, and hence confusing, regulatory frameworks as applied to carbon credits across the northern jurisdictions and by the Commonwealth (Table 1). If offsets are to work in the manner you propose, and be beneficial to broader society’s interests in the NT, these issues must be addressed.

Table 1: Key policy challenges to developing beneficial offsets regimes in northern Australia, including the NT

Source: Russell-Smith J, Sangha KK (2019) Beneficial land sector change in far northern Australia is required and possible—a refutation of McLean and Holmes (2019). *The Rangeland Journal* **41**, 363-369.

Issue	Comments
Inconsistent policy settings in the three northern	<ul style="list-style-type: none"> • The Commonwealth Government’s recent Northern Development White Paper (CoA 2015: 34) notes that “while

¹ Bristow, M., Hutley, L.B., Beringer, J., Livesley, J., Edwards, A.C., and Arndt, S.K. (2016). Quantifying the relative importance of greenhouse gas emissions from current and future savanna land use change across northern Australia. *Biogeosciences* **13**, 6285-6303.

² Commonwealth of Australia (2015). *Our North, Our Future: White paper on developing Northern Australia*. (Commonwealth Government: Canberra).

<p>jurisdictions supportive of diversification opportunities on pastoral leases</p>	<p><i>some jurisdictions have more flexible arrangements than others, pastoral leaseholders often face a number of challenges</i>”, including: land use restrictions for other than grazing; often requiring approvals from various government bodies; reduced investment security (see CoA 2015: 34-38)</p> <ul style="list-style-type: none"> • The Northern Development White Paper proposes that such key regional policy issues (and others, see below) could be effectively addressed through the Northern Australia Strategic Partnership, including biannual meetings of the Ministerial Forum on Northern Development involving Federal and State Ministers and agencies, and two advisory groups, an Indigenous Reference Group, and a more broadly based North Australia Advisory Council (CoA 2015:10; Office of Northern Australia 2019³) • In supporting the above initiative, Dale (2019)⁴ notes also (1) the importance of engaging with regional planning and local government initiatives, but (2) <i>“the lack of cohesive vision in the white paper concerning the role of Indigenous people...and the lack of clear pathways and strategies for supporting the development aspirations of Traditional Owners” (ibid: 218).</i>
<p>Addressing the complexities, time constraints and uncertainties that can be associated with Native Title, multi-tenured arrangements</p>	<ul style="list-style-type: none"> • The Northern Development White Paper notes <i>“Importantly, pastoral leases and native title rights co-exist over Australia’s north. Broadening and securing these leases through negotiation will create opportunities for partnership that benefit both Indigenous and non-Indigenous people”</i> (CoA 2015: 34) • Given that Native Title is too often seen as a barrier to, rather than an opportunity for, economic development benefiting all title holders, the White Paper outlines various initiatives and processes for expediting negotiation processes (CoA 2015: 18-29). From a practical land management perspective perhaps the most innovative of those initiatives is the commitment to support pilot (or demonstration) activities (<i>ibid: 17-18</i>)—for case example, supporting economic diversification activities on pastoral lands in multi-tenured settings.
<p>Inconsistent policy settings between the three northern jurisdictions, and the Commonwealth, concerning carbon rights legislation</p>	<ul style="list-style-type: none"> • Carbon rights serve as a prime example of the dysfunctional regulatory framework that currently applies to affect the development of ecosystem services opportunities across the North—refer Dore <i>et al.</i> (2014)⁵ for the different regulatory frameworks applying both to (a) Native Title holders, pastoral lessees, and freehold landowners, and (b)

³ Office of Northern Australia (2019). Northern Australia Ministerial Forum.

<https://www.industry.gov.au/about-us/our-structure/office-of-northern-Australia>

⁴ Dale, A. (2019). Governing North Australia landscapes for a better future. *In: ‘Sustainable Land Sector Development in Northern Australia: Indigenous Rights, Aspirations, and Cultural Responsibilities’*. (Eds. J. Russell-Smith, G. James, H. Pedersen, and K. Sangha) pp. 203-221. (CRC Press: Boca Raton, FL, USA)

⁵ Dore, J., Michael, C., Russell-Smith, J., Tehan, M., and Caripes, M. (2014). Carbon projects and Indigenous land tenure in northern Australia. *The Rangelands Journal* **36**, 389-402.

	<p>savanna burning emissions abatement and sequestration projects, in (c) respective northern jurisdictions</p> <ul style="list-style-type: none"> • The role of the Commonwealth is also pivotal given provisions of the Carbon Farming Initiative Act (2011)⁶, and subsequent amendments, particularly with respect to treatment of sequestration projects involving Native Title—refer Dore <i>et al.</i> (2014) for initial details
Engaging the far northern pastoral industry in ecosystem service market opportunities	<ul style="list-style-type: none"> • Substantial work is required to address firstly the above actual and perceived policy barriers • The commitment to support practical pilot (or demonstration) economic diversification activities (CoA 2015: 17-18) would also assist to overcome such barriers

3. Technical guidelines, Section 8.2: Indirect emissions offsets—although this section refers to indirect emissions offsets, here I address indirect offsets generically. First, very pleasing to see acknowledgement of the need for and opportunity to fund associated R&D activities—this has been a thorny issue for many years with respect to researching and developing savanna burning methods. However, following on from Comment 2 above, it is just as critical to support building the capacity of land managers and entities to be able to implement offset projects in an equitable, efficient, accountable and sustainable manner.

As one illustration, there are ~35 Indigenous Ranger Groups (IRGs) operative in the NT funded through Commonwealth Government ‘Working on Country’ and ‘Indigenous Protected Area’ programs. Given the contracted focus of IRGs is to meet a variety of biodiversity and cultural resource management targets, with strategic funding support such groups could readily provide an effective basis for implementing agreed offset arrangements. For long-term sustainability, such investment should target development of viable community enterprises, essentially including, as recommended by Morrison (2012)⁷, Cooke (2019)⁸, Kerins and Green (2019)⁹, James et al. (2021)¹⁰, the building of integrated bottom-up community, and top-down corporate, governance and administration capacity.

⁷ Morrison, J. (2012) Towards resilient communities through reliable prosperity. North Australian Indigenous Experts Forum (IEF) on Sustainable Development – First Forum Report, Mary River Park, Northern Territory, June 19-21. NAILSMA Knowledge Series 013/2012. North Australian Indigenous Land and Sea Management Alliance Ltd., Darwin, Northern Territory.

⁸ Cooke P (2019) Social capital and the creation of an innovative environmental and cultural enterprise in Arnhem Land. In ‘Sustainable Land Sector Development in Northern Australia: Indigenous Rights, Aspirations, and Cultural Responsibilities’. (Eds J Russell-Smith, G James, H Pedersen, K Sangha) pp. 120-123. (CRC Press: Boca Raton, FL, USA)

⁹ Kerins S, Green J (2019) Like a rusty nail, you can never hold us blackfellas down; cultural resilience in the southwest Gulf of Carpentaria. In ‘Sustainable Land Sector Development in Northern Australia: Indigenous Rights, Aspirations, and Cultural Responsibilities’. (Eds J Russell-Smith, G James, H Pedersen, K Sangha) pp. 177-200. (CRC Press: Boca Raton, FL, USA)

¹⁰ James, G., Burton, D., Campion, O., Hunter, B., Morrison, J., Gondarra, T., Bayung, J. (2021) Indigenous fire and land management—impact and sustainability: Final Report. Bushfire & Natural Hazards CRC, Melbourne.

While expanding the remit of indirect offsets to include building the capacity of IRGs (and other community groups) to engage in offsets projects is an obvious Territory-appropriate example, as noted in Table 1 just as fundamental is resourcing “initiatives and processes for expediting negotiation processes”. This includes engagement with corporates who are looking for ethical, credible and accountable offsets. May I suggest that expansion of defined allowable and supportive indirect R&D offset criteria will significantly assist implementation of the fine principles underlying the NT’s Offset Framework.

From:
To: [environment policy](#)
Subject: Fracking in the NT
Date: Thursday, 14 October 2021 6:54:07 PM

FAO: Chief Minister, and Minister for the Environment, NT

Dear Sirs,

I have visited the NT many times, and have fond memories of the beautiful territory and its wonderful Aboriginal people.

But I have recently become very disenchanted with its ridiculous political people.

The present government is bringing the NT into low regard by the public.

Why? Only the ministers know, and they are not answering questions.

Why? Because ministers in the NT government have shown blatant disrespect for the law. For example, the minister has overridden the access and reporting requirements required for Santos at cattle stations.

Why? Because ministers in the NT government have abandoned the concept of the NT as an ecological paradise, attracting tourists. For example, fracking of iconic NT regions such as the Beetaloo Basin is giving the NT the public reputation of welcoming carbon-based industries to destroy the environment.

It is a disaster for the NT's tourist image. I will not return to the NT while this irresponsible behaviour continues. Why should you worry? One silly old tourist. Let's see how much tourist loss, and punishment in the polls, your ministry can sustain? Please don't look forward to positions on the boards of these carbon companies in the future. These companies do not have a future.

Wake up to yourselves,
Dr John Duley
Lower Beechmont, QLD 4211

From:
To: [environment policy](#)
Subject: Re: Draft Greenhouse Gas Offset Policy
Date: Saturday, 16 October 2021 6:27:11 PM
Attachments:

Thank you.

Perhaps you could explain what those 'Guidelines' are, in relation to the federal government's evolving 'zero carbon' proposed policy?

Is your department, which has seemingly done nothing for the environment apart from token issues, content to facilitate fracking when it represents increased risks for - (1) groundwater pollution with fracking chemicals (I'm a chemist and found these listed online by Santos), (2) water table drainage and loss of surface water reservoirs such as lakes and rivers in the Beetaloo Basin, and (3) increased earthquakes, as documented in the USA for example in Oklahoma?

I look forward to receiving details.

Kind regards and wishing you increased strength to provide real environmental protection to the NT,
Dr John Duley

From:
To:
Subject: [Submission to environment policy inbox: Offsets" policies](#)
Date: Monday, 11 October 2021 3:21:34 PM

Cc: To Michael Gunner
chief.minister@nt.gov.au

To environment.policy@nt.gov.au

Re: my factual basis to submit to your consultation

As an older resident of the Northern Territory I request you accept and act on my findings on your Government's Draft Offsets' Framework, the New and Large Emitters' Policy and its Draft Emitters' Policy.

Does it really depend on whether offsets are calculated correctly and/or using scope 1,2 or 3? Yes it does. It is recommended in your Pepper Inquiry, recommendation 9.8.

However if i try to question what I know, I always come to a problem. This is a policy problem as I believe it: to remove fossil fuels and greenhouse gas emissions and thereby stop their emissions from our planet. It is the rationale of an implementation process.

I find in 2021 Australian fossil fuels emitting carbon, greenhouse gas and methane emissions do not appear to be reducing.

Your Northern Territory Government and the Australian government policy currently seek to increase production of carbon, greenhouse gas and methane emissions.

Acknowledging this I note your Northern Territory Government (NTG) and the federal Coalition Government propose new industries. These yet to be achieved are Carbon Capture & Storage, fossil fuel-generated hydrogen (as a new energy source) or new facilities for nuclear power.

These are long term, big investment capital initiatives yet they all deny the immediacy of the policy problem.

Therefore I understand these proposals at this stage are delaying tactics because it puts off making decisions now. It distracts from the essential principle which must be to stop new gas exploration, gas extraction, and its continued use.

Your draft policies: draft Offset Framework, Large Emitters Policy, Greenhouse Gas Emitters Offset Policy appear to perpetuate a continuum of a policy to keep all of these three scopes in full play.

It's surely true diverting all current fossil fuel subsidies in the Territory could achieve renewable energy products, and will benefit our services and our regional communities.

Business and capital can follow a PAWA NTG plan to renewable energy services in your Climate Change policy.

Targets towards reductions in all carbon and greenhouse gas emissions can honestly be set yearly.

You our Chief Minister and your elected government were advised in September this year by over 60 climate scientists (published NT News) to fulfil the recommendation of the Fracking Inquiry to ensure that there is no net increase in greenhouse gas emitted in Australia from fracking in the NT. Failing this, the climate scientists warn, fracking must be abandoned.

They acknowledge that planned production of gas in the Beetaloo could increase Australia's greenhouse gas emissions by as much as 20%. This would have catastrophic effects on the climate and would certainly undermine the possibility of Australia achieving its already-too-weak Paris Agreement targets.

(I know your government's ultimate goal envisions by 2050 renewables in the electricity sector).

However yearly targets are not clear to me how this will be achieved for this next decade.

I accept there is a difference by your government's goal from the federal Australian limited somewhat opaque goals).

The climate scientists tell you in addition both your government and the Commonwealth subsidise the oil and gas industry, despite the fact these big corporations pay little to no tax. Recently, the Commonwealth announced \$50 million of taxpayer's money to pay 25% of the exploration costs for fracking companies in the Beetaloo Basin, and a further \$174 million to upgrade roads for their fracking trucks.

(I also include your government's subsidy of land granted, possible water use and its pollution, research reports with salaries paid following lifting the moratorium you put on fracking.)

From Zali Steggal MP for Warringah I read on 8/10/2021 her research for a Climate Change Bill. She seeks a change for Australia to commit 'to double our short-term 2030 emissions reductions target from < 28% to 60%. This she finds will put us 'in line with the latest scientific advice and improved commitments made by the US, the UK and the EU and reflects the fact that only with urgent emission reductions before 2030 can we still hope to deliver the goals of the Paris Agreement'.

It is interesting to reflect that your Draft Policies on Offsets may be prepared and enacted in the NT before the international COP26 climate summit in November or next month.

So too might the Grattan Institute's timely press release of today (11/10/2021). Their information is relevant. The potential for offsetting their report finds, must be a change based from reality. It's in pursuit of net zero.'offsetting will be required because there will be emissions we cannot eliminate, and some where we will not be willing to pay the price to do so'....

This is pertinent to counting in the NT scope 3 carbon and oil and greenhouse gas emissions, in an offset framework or including our continuing use of offshore gas.

Further they find 'the only option to deal with these emissions is to deliberately remove carbon dioxide from the atmosphere to offset them. Net zero without offsetting makes no sense – it would leave no room for any activity that produces emissions'.

When my view is held about the absolute requirement to stop fossil fuel emissions I accept it's been scientifically proven to be a pathway for human survival on our only known planet earth. This is what COPD26 is about.

Developing a new framework for new carbon and greenhouse gas offsets is a process to prolong these emissions. It's suspect.

For the sake of all our next generations of Territorians I implore you:

Do not subsidise fossil fuels, do not just talk of a green recovery, do it, and do not be hypocritical about it. Stop increasing fossil fuel emissions. Stop the fracking.

Yours sincerely

Joanna Parish

From:
To: [environment policy](#)
Subject: <no subject>
Date: Thursday, 14 October 2021 10:10:08 AM

Dear Northern Territory Government Environment Minister,

I have enjoyed several visits to the Northern Territory and each time have been left with a sense of awe at the vast beauty of the natural environment. I currently live in Melbourne with two small children and am passionate about the environment and deeply concerned about the projected impacts of anthropogenic climate change. The clear scientific evidence makes it now overwhelmingly apparent that not acting to address climate change is morally irresponsible.

Due to my love for the natural environment, support for the rights of indigenous people, and concern about climate change, I strongly oppose fracking and other forms of fossil fuel extraction, especially in the Northern Territory. The recent UN Intergovernmental Panel on Climate Change report showed unequivocal evidence about the dire projections of climate change and urgent need for genuine climate action that significantly reduces emissions this decade. In addition, the International Energy Agency has clearly stated that no new gas, oil or coal projects should be commenced if we are to have a chance at keeping global heating to less than 1.5 degrees celsius.

I have read the Territory's draft 'Greenhouse Gas Emissions Offsets Policy', and have concerns about the many loopholes allowing gas companies to avoid their moral responsibilities regarding emissions resulting in climate change. For example, the current draft document does not require gas companies to offset their life cycle greenhouse gas emissions. The Draft Offset Policy also leaves offset requirements up to the relevant government decision-maker and opens the door to carbon capture and storage (CCS) being recognised as "indirect offsets". To date, CCS has not been proven to be an effective way to meaningfully reduce emissions.

I therefore suggest that the draft 'Greenhouse Gas Emissions Offsets Policy' be redrafted with:

- 1) All references to 'indirect offsets' removed;
- 2) An explicit statement that carbon capture and storage is not a recognised category of offset;
- 3) A clearer statement that all life cycle emissions (scope 1, 2 and 3 emissions) must be offset;
- 4) All life cycle emissions to be estimated and genuinely offset in accordance with recommendation 9.8 of the Pepper Inquiry.

Preferably, however, I urge the NT government to block fracking for gas in the NT from proceeding at all. The only way to really ensure that we progress toward net-zero emissions is to stop emitting greenhouse gasses. Renewable energy has so much potential, projects such as the Sun Cable solar farm should be considered as alternative investments for the future of the Northern Territory.

Kind regards,

Dr Jonathan Hiller

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To: [environment policy](#); [Chief Minister](#); electorate.nightcliff@ntgov.au
Subject: Submission re the NTG Draft Greenhouse Gas Emissions Policy
Date: Thursday, 14 October 2021 7:45:36 PM

Dear Sir/ Madam,

I live in the Nightcliff Electorate . I am science trained, and have worked in landcare. I currently work in the community services industry. I am extremely concerned about climate change and feel we must progress to rapidly lower our carbon emissions for the sake of our children, and the future of the whole planet.

I am worried Darwin will become unlivable and the Territory I love will have no future.

My concerns are the following points

- The new category of carbon offsets that the NTG has invented and termed 'indirect offsets' are not acceptable and all reference to 'indirect offsets' should be removed from the policy. It is reckless to allow companies to pollute now on a flimsy hope that years from now they might be offset.
- In its current draft the policy gives far too much power to individual decision makers –and ultimately the Environment minister – to determine whether or not offsets are required and how much companies will be required to offset. This is alarmingly weak policy and totally lacks transparency and accountability. The redrafting this policy should outline a clear objective method for determining when offsets should be applied and the amount of offsets that are required. Leaving it to a government department to decide on offsets on a project-by-project basis with a loose reference guide is not acceptable.
- To meet recommendation of 9.8 of the Pepper Inquiry, which this government has repeatedly committed to, all cycle emissions generated in Australia including scope 1,2 and 3 emissions from onshore gas projects must be fully offset using genuine accredited offsets.
- Your full agreement with the 60 acclaimed climate scientists and experts who recently wrote in an open letter stating the following, “Chief Minister Gunner, for you to honour your commitment the NT offset policy must require all lifecycle Greenhouse Gas emissions in Australia from any onshore gas produced in the NT including scope 3 emissions to be fully and genuinely offset... If this cannot be achieved, a critical recommendation has failed and fracking should not proceed.”
- In its current drafting the policy constitutes a backflip on the government's repeated commitment to implement all 135 recommendations from the Pepper Inquiry as it fails to guarantee "that there is no net increase in greenhouse gas emissions emitted in Australia from any onshore shale gas produced in the NT”.

The emissions we are talking about from the Beetaloo Basin alone are estimated to add between 39-117 million tonnes of CO₂e to the atmosphere a year. 117 million tonnes of CO₂e equates to 22% of Australia's current greenhouse gas (GHG) emissions. That means this one basin has the potential to increase Australia's current emission load by 22%. These emissions are globally significant in terms of the impact on our climate and the gas industry should not proceed if these emissions are not 100% offset using genuine accredited carbon credits.

Given the sheer amount of emissions we are talking about it will be difficult to implement and cost gas companies billions of dollars to purchase genuine carbon credits.

The whole basis of the gas industry as a transitional fuel has shown to be false and gas prices will not sustain as we move globally to renewables. I am concerned the taxpayer will be left with the bill for this failed offset policy.

Sincerely

Jill Steverson

The Hon. Michael Gunner
Chief Minister of the Northern Territory
Department of Chief Minister and Cabinet
GPO Box 4396
Darwin NT 0801

The Hon. Michael Gunner

Re: draft Greenhouse Gas Emissions Offsets Policy (Draft Offsets Policy)

Thank you for the opportunity to comment on the **Draft Offsets Policy**. As a resident of the Northern Territory (NT) for over 20 years, I recall your commitment in 2018 to the faithful implementation of all the recommendations of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory, **including ensuring that there is no net increase in the life cycle GHG emissions emitted in Australia from any onshore shale gas produced in the NT.**

The impacts of climate change are escalating, leading to more frequent and extreme disasters across Australia and the world. The NT is particularly susceptible. In Darwin the number of days over 35°C is expected to increase from 11 days per year currently to up to 308 days in 2070 if emissions are not reduced quickly. Climate change is also increasing the frequency and severity of fires, floods and other extreme weather events. Sea-level rise is accelerating, and sea levels along the NT coast are rising faster than the global average.

The rapid escalation of climate change and its impacts was underlined by the latest IPCC report and it issued a **Code Red for humanity**. This was supported by the International Energy Agency's (IEA) pathway to limit global warming to 1.5 degrees. There is no room for major new fossil fuel developments like fracking across the NT.

The Draft Offsets Policy does not require gas companies to offset their life cycle emissions. Instead, that is at the discretion of the relevant government decision-maker. The Draft Policy does not require gas companies to estimate their life cycle emissions generated in Australia (which would be required at a bare minimum to know the size of the offset for those life cycle emissions).

As per the request of 60 of Australia's leading scientists and experts, who in an open letter called for you to honour this commitment to fully offset all NT fracking emissions, I request that you honour your commitment to no net increase in greenhouse gas emissions from onshore shale gas fracking in the NT. If this commitment cannot be honoured, fracking should cease.

To proceed with fracking in the NT, even where fracking emissions are fully offset, is completely insane and will inevitably destroy our tourism industry, biodiversity and native ecosystems, Territory lifestyle and much more.

Yours sincerely
L. Harrison
Rapid Creek
NT 0810

A personal submission related to the Draft Offsets and Large Emitters Policies

Jody Brown is a grazier from Longreach in Central Western QLD, Iningai country. With her family she runs a cattle station. She is also a member of Farmers for Climate Action and a new mum. She writes, "Our region is now in its eighth consecutive year of drought. We have been dealing with ongoing droughts of increasing severity for the better part of the last two decades. Without serious cuts to emissions, by the time our daughter is nearly 30 (by 2050), Longreach could be spending over 40 per cent of the year in 40°C plus heat. This would be disastrous for the farm and our community."¹

My name is Lesley Walker and I am a Victorian dairy farmers' daughter and a retired science teacher. I have been teaching the year 7 physics of the greenhouse effect for almost forty years. It is not a difficult concept but its implications are horrifying. It worried me when I first learnt of it and it terrifies me now.

I, along with literally hundreds of friends, have been actively fighting our different levels of governments' strategy of effectively ignoring the whole thing for a long time. To be honest, I am sick and tired of how my life is dominated by my attempts to persuade governments to do their job, protect the people of my council area, my state and my country. I am tired of reading about people like Jody and the difficulties that her family, and especially her daughter, will face. I am sick at heart when I think how we have broken the lovely planet we received from our ancestors and the mess we are bequeathing to our children and grandchildren. And that we do so knowing what we do makes it all so much worse.

Which brings me to my specific asks of you, the government of another state to the one in which I live, your Northern Territory. I am particularly concerned that you are considering allowing fracking for new gas to be conducted with no guarantee that the resulting emissions will be fully offset. This letter is to attempt to add to all the other arguments from scientists, energy experts, grassroots organizations etc. that this is a dreadful idea and should not pass Go. Please forgive me as I inevitably repeat arguments you have already heard.

Over the past 40 years the annual maximum of average daily wet-bulb temperatures in the tropical region has been 33°C². This means an increase in the global average of 1.5°C compared to pre-industrial times will cause the wet-bulb average to reach almost 35°C. The combination of this particular temperature and humidity can quickly turn deadly. In fact a 'wet bulb' (i.e. very high humidity) temperature of 35°C can be fatal after a few hours, even with ideal conditions such as unlimited drinking water, inactivity, or shade. This

¹ <https://farmersforclimateaction.org.au/portfolio/substantial-emissions-reductions-this-decade/>

² <https://www.forbes.com/sites/erikkobayashisolomon/2021/04/16/climate-catalysts-but-its-a-dry-heat/?sh=57c46b1136ac>

means that in practice, dangerous wet-bulb temperatures would be much lower than 35°C.³ My step-daughter worked on the Tiwi Islands several years ago and has told me many stories of the high monsoonal humidity. As temperatures increase with global heating your already high humidity will also rise as warmer air can hold more moisture. This is of course also why storms are becoming more violent. The deadly heat/humidity combination looms large.

Temperatures far in excess of 35°, or even 40°C are already being experienced in the more southern states. In January 2020 a Sydney suburb recorded 48.9°C⁴ ambient air temperature. If temperatures even approaching these were to occur in the NT, with your high humidity, the death toll could easily be staggering, especially in low socio-economic areas. And if a 1.5°C rise will mean the areas between 20°N and 20°S become “unsurvive-able” for significant parts of the year imagine if we cannot in fact limit the rise to 1.5°C.

Of course, impacts are not limited to the physical and biological. The social impacts are also enormous. New research shows a sizeable chunk of Northern Territory’s doctors are thinking about leaving the territory because of climate change. An ANU study recently published in The Lancet Planetary Health, reports 34% of doctors surveyed say that climate change is already, or is likely to, make them consider leaving the NT. These doctors would leave behind communities already suffering from the effects of climate change.⁵

So the impact of global heating in the NT will be unique to it but it will be significant and awful. I imagine that that was the thinking behind your landmark 2018 Pepper Inquiry and its recommendation that life cycle emissions in Australia from fracking shale gas in the Territory be completely offset. Respect for the consequences of global heating would also have been the thinking behind requiring this 100 per cent offsetting as part of your government’s lifting of its moratorium on fracking. Anything less would, in the light of what we know, be unacceptable. (I myself would vastly prefer that, as the International Energy Agency recommended in May, to align with the 1.5-degree Paris goals, there should be no new oil, gas or coal extraction at all.⁶ I am mystified why the damaging, filthy practice of fracking is even being considered. The global transition to new technologies such as hydrogen produced using clean technologies will shortly be the new boom business.

³ <https://climateai.medium.com/wrapping-a-wet-towel-around-a-thermometer-could-help-us-understand-how-to-survive-our-climate-38bd85411e6b?source=rss-70a89486d6a5-----2>

⁴ <https://www.abc.net.au/news/science/2021-01-24/heatwaves-sydney-uninhabitable-climate-change-urban-planning/12993580>

⁵ <https://theconversation.com/too-hot-heading-south-how-climate-change-may-drive-one-third-of-doctors-out-of-the-nt-156959>

⁶ In fact the IEA has just released its annual World Energy Outlook which warns, “The direction of travel (of fossil fuel uptake) is a long way from alignment with the IEA’s landmark **Net Zero Emissions by 2050 Scenario** published in May 2021”.

Andrew Forrest knows a thing or two and is investing in billions in it. Surely this would suit and serve the NT better.)

Obviously, the NT is not setting Federal policy but it is significant that Australia's current 2030 targets are woefully inconsistent with limiting global warming to well below 2°C. If Australia were to be a part of a global effort to keep warming to 1.5°C, we would need a 74% reduction on 2005 levels by 2030. While the NT can only be responsible for its own region this sort of figure should be considered when formulating legislation, along with the threats to the NT described above.

So I finally come to my point. We cannot afford our emissions to go up. They must in fact go down, and rapidly. This is especially the case for methane, a gas which has at least 85 times the global warming potential of CO₂ over twenty years.⁷

I believe the Draft Offsets Policy (and Large Emitters Policy) needs to be redrafted. Specifically, all of the following four alterations must be made to return the Draft Policy to anything like satisfying Gunner Government's important earlier commitment to ensure that there is no net increase in emissions in Australia from the Territory's onshore shale gas industry.

- The Offsets Policy must require all life cycle emissions generated in Australia to be estimated and genuinely offset for onshore gas projects, in accordance with recommendation 9.8 of the Pepper Inquiry.
- It must make clear that requiring only scope 1 and 2 emissions from onshore gas projects to be offset is insufficient. All life cycle emissions generated in Australia (scope 1, 2 and 3 emissions) must be offset to comply with Recommendation 9.8.
- All references to "indirect offsets" must be removed.
- It must explicitly state that carbon capture and storage (and research and development for carbon capture and storage) is not a recognised category of offset.

As I mentioned earlier I have no wish to repeat arguments advanced by other parties, although I certainly have done so. But having said that I feel I must still mention that I am very concerned that remote Aboriginal communities like Borroloola, Minyerri, Kalkarindji and Maningrida, and others, do not consent to

⁷ <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/global-warming-potential>

the use of their land by huge profit-driven national and international companies.

I strongly urge you to immediately announce that you will not give their land to strangers in order that they may exploit and potentially damage their water and climate.

Yours sincerely,
Lesley Walker,
Northcote,
V. 3070

15.10.2021

Dear ministers and policy advisers,

I am a father and long term Darwin resident. I love the unique NT way of life and everything the NT has to offer especially outdoor activities such as hiking, fishing and camping. This is the great appeal of the Territory. These are all season-dependent activities in the NT and we hang in there through the hot months hankering for the dry season to come around.

But what worries me is that in decades to come – in my lifetime and my daughters lifetime – there will be no cool season to enjoy these activities and **we will be locked indoors in aircon year-round or forced to leave the place we love** and the city where my daughter was born. On top of that, as an avid fisho, I worry that as the planet warms due to climate change, marine heat waves will wreak havoc on estuaries and fisheries.

I've seen news headlines about the IPCC issuing a '**code red for humanity**' and I saw that the International Energy Agency (IAE) has said that globally there should be **no new investment in oil, gas or coal assets after 2021 if we are to reach net zero emission energy by 2050**. I've also seen the sobering temperature-rise predictions for Darwin, and quite frankly, I can't see how it is going to be bearable to live here.

The scientific community has been jumping up and down about climate change for a long time and it has fallen on the deaf ears of decisions makers. But now the writing is very much on the wall and some people – executives in large corporations and world leaders – are starting to respond by phasing out fossil fuels quickly and jumping on the renewables train. But **Australia is still pushing the gas barrow and subsidising gas projects in the industry's dying days**.

This makes absolutely no sense to me on any level. We don't need gas to have a strong economy; in fact gas will *weaken* our economy because the cost of dealing with the impacts of climate change will be enormous. I believe **it is totally reckless for the NTG to be approving new gas projects in this day and age**.

This is my take on it. However it seems the NTG is forging ahead with gas regardless. Given this is the case **I want to be assured that the government is taking every measure to make sure large GHG polluters like gas companies fully offset their emissions using genuine carbon credits**. I have seen in the news suggestions that your NT Labor government is poised to backflip on your commitment to offset the full life cycle emissions from the NT fracking industry, so I looked into it further and read the Draft Offset Policy.

I was alarmed just how weak the draft policy is. I find it very concerning that the individual decision-makers have full power to determine whether or not offsets should be required and how much companies will be required to offset. **Where is the transparent process? Where is the well-laid out objective method?** How do we know the regulator or the minister won't just decide that emission offsets are not required at all or that they only require 5 or 10% of their emissions to be offset? **This is vague and bad policy and indeed it looks like a backflip on the government's prior commitment**, as there is nothing concrete or binding to make sure all life cycle emissions from fracking will be offset.

The other very concerning part of the Draft policy is the inclusion of 'indirect offsets'. This is a total farce (and is reminiscent of something from a Rob Sitch political satire). Unfortunately the NTG is actually serious. Indirect offsets are not real genuine offsets: we have no guarantee they will work and the climate risk is too great to be mucking about with unproven technology. We need to stop GHG pollution immediately as the IEA stated, and if we keep our head in the sand about that then at the very least we need to fully and genuinely offset these emissions. We know methods exist – like planting trees – that work to draw GHGs out of the atmosphere. We do not need not some unproven, expensive and likely-to-fail technology. **I do not accept investment Carbon Capture and Storage (CCS) to be a genuine offset. I urge you to ensure the offset policy explicitly rules out offsetting with investment in Carbon Capture and Storage technologies.**

I urge policy advisors and ministers to **remove all reference to “indirect offsets” from this policy and ensure that companies will not be allowed to invest in CCS and claim that as an offset under any circumstance.** I want the NTG to do everything in its power to limit warming well below two degrees celcius and preferably below 1.5 degrees as the Paris agreement states, so that my daughter will be able to continue to live in the Territory. Looking at this weak draft policy it doesn't look like the NT Labor government is committed to achieving that goal which makes me very sad and worried for the future.

I urge the government to redraft this policy to ensure all life cycle emissions from gas projects are fully offset using genuine carbon credits as required in order for the government to meet its commitment to implement all 135 recommendations of the Pepper Inquiry.

Further, in the redrafting **I urge the government to outline a clear transparent and objective method for determining when carbon offsets are required and the amount of offsets that are required.** This should not be left to the discretionary judgment of a few decision makers. If the Labor NTG significantly redrafts this policy it will show me that the government is committed to ensuring a safe future for NT families.

Sincerely
Mike Kermode
Rapid Creek

From:
To: [environment policy](#)
Cc: [Chief Minister](#)
Subject: Greenhouse Gas Emission Offsets Policy
Date: Thursday, 14 October 2021 12:45:27 PM

To Whom It May Concern,

I am writing regarding the Greenhouse Gas Emissions Offsets Policy document that is currently up for community consultation. To give some context, I am a local Nightcliff resident, a mother to an eight month old baby and an emergency doctor.

Firstly, I am deeply concerned about the huge emissions (estimated to be equivalent to 20% of Australia's annual emissions) that will be generated by new gas projects such as fracking in the Beetaloo Basin. The Chief minister previously promised to fully offset all NT fracking emissions, however this draft policy:

- Does not require gas companies to offset their life cycle greenhouse gas emissions;
- Gives far too much power to individual decision makers, i.e leaving it up to the discretion of the relevant government minister whether offsets are required at all, and how much companies will be required to offset; and
- Outlines the option for "indirect offsets", including carbon capture and storage (which is still yet to be proven and is very costly).

This is not good enough! All offsets should be accredited Australian Carbon Credit Units and all references to "indirect credits", including carbon capture storage, need to be removed from this document. Further, all life cycle emissions (scope 1, 2 and 3) generated in Australia need to be estimated and genuinely offset for onshore gas projects, in accordance with recommendation 9.8 of the Pepper Inquiry.

We know from science the huge impact climate change will have on our planet, including increasing the frequency and severity of fires, floods and other extreme weather events. We in the NT are particularly susceptible - in Darwin the number of days over 35 degrees is expected to increased from 11 days per year currently to up to 308 days in 2070 if emissions are not reduced quickly. In my line of work, I regularly see heat-related presentations and I expect this to only rise with climate change - a further burden on our already stretched health system. As a new mother, I am also concerned about the world my son and his children will inherit. There will likely be many places in Australia that will no longer be safe to inhabit, likely including Darwin.

In its current drafting, this policy constitutes a backflip on the government's repeated commitment to implement all 135 recommendations from the Pepper Inquiry, as it fails to guarantee "that there is no net increase in greenhouse gas emissions emitted in Australia from any onshore shale gas produced in the NT". I strongly urge you to consider these points I've made in this submission. Ideally we should take heed from the calls made by independent scientists that "offsets are not a real solution. We should not be allowing fracking to go ahead in the first place". Indirect offsets will not mitigate the impact of emissions, and neither will this policy. The Northern Territory Government cannot accept CCS, research and development about CCS or any indirect offset, as a category of offset. Please take genuine climate action and reduce emissions for the sake of our own and future generations.

With kind regards,

Dr Monica Leung
BMus(hons), MBBS(hons), EMC, DRANZCOG, ACEM advanced trainee

From:
To: [environment policy](#)
Cc: [Chief Minister](#)
Subject: Submission on Draft Greenhouse Gas Emissions Offsets Policy
Date: Thursday, 14 October 2021 8:27:44 PM

To whom it may concern,

I'd like to offer a brief response to the draft Greenhouse Gas Emissions Offsets Policy. I'm a Darwinite in my mid 30s, and father to a tiny Territorian about 9 months younger than Hudson Gunner. I don't think I've ever written a letter to an MP before, but I do worry about inaction in the face of changing climate, and this proposed policy has me really concerned for the future we are signing ourselves up to.

From my reading, the draft policy purports to have good intentions -

'Emissions offsets must make a material and meaningful contribution towards achieving the Territory's target of net zero emissions by 2050...' (page 7)

- but the pudding contains no proof. Or rather, the proposed policy contains no clear method for determining offset applicability - it seems to leave this up to the discretion of the relevant minister on a case-by-case basis. I'm far from convinced that this provides sufficiently robust checks and balances to serve as policy relating to the gas industry. Further, its opaqueness is alarming and certain to fail the pub test. The future version of this document ought to outline an objective and transparent framework for determining when and to what extent offsets are applicable, and I would expect it to specify the scope 1, 2 and 3 emissions offsets required under the government's commitment to meet recommendation 9.8 of the 2018 Pepper Inquiry.

The other point I want to make relates to the so-called 'indirect emissions offsets', which are quite plainly not offsets at all. To allow fracking companies to use R&D funding to justify their massive emissions would be reckless, and fly in the face of this government's commitment to net zero by 2050. I am particularly appalled by this section of the proposed policy - it is utterly inadequate and should be completely removed on subsequent redrafting.

We may already have a climate of extremes in the NT, but research tells us that things are changing rapidly and for the worse. Current projections for Darwin estimate the annual number of days above 35 degrees to increase from about 11 at present to 43 days by 2030 (with exponential increase following that). We're also on track for more frequent and damaging cyclones and flood events. As the NT government would be well aware, these changes will have huge ramifications for health and livability, biodiversity, and of course our tourism industry. In light of this, it seems obvious that it would be irresponsible to allow new gas projects of the scale proposed in the Beetaloo Basin to go ahead. But to leave open the possibility that such projects could proceed without their emissions being offset by accredited Australian Carbon Credit Units would be unthinkable.

Warming regards,

Matthew Parker

12/10/2021

Via email to: Environment.policy@nt.gov.au

Dear Sir/Madam,

Re: Submission to the draft *Greenhouse Gas Emissions Offsets Policy and Technical Guidelines* public consultation

Thank you for providing the opportunity to provide feedback on the abovementioned draft guidelines.

As a Northern Territory (NT) resident, I am concerned about climate change and the impacts of climate change on our unique Territory way of life. We are already experiencing the impacts of climate change, with increased frequency of very hot days (above 35 degrees) and more wildfires influencing air quality and biodiversity in the Top End. The looming impacts of climate change, including sea level rise, increasing cyclone frequency and intensity and reduced water security, makes me anxious to continue living in the Northern Territory.

I also have a degree in environmental studies and acutely understand the cross-cutting nature of the impacts of climate change. Climate change will impact human health, our economy, our environment and our livelihoods at local, regional and global scales.¹ The Intergovernmental Panel on Climate Change has recently confirmed that keeping warming well below 2 degrees and reaching net zero emissions is essential to limit biophysical impacts, and by extension, other socio-economic impacts.² It is imperative that climate change mitigation is at the forefront of each and every policy decision moving forward.

The NT has the potential to be part of the solution to climate change or continue to be part of the problem. Meaningful policy change and regulation of emissions are essential to address climate change³ and I welcome the Government's target of net zero emissions by 2050. I want to see the NT leading the way on climate action, with strong policies which secure a safe climate future. The draft Greenhouse Gas Emissions Offset Policy and Technical Guidelines do not fit that vision.

The key problems with the draft guidelines are:

- The guidelines do not require emitters to offset all life-cycle emissions.
- Decisions about if offsets are required are discretionary. It is not clear that all emitters will be required to be offset.
- The guidelines include the options for "indirect offsets" and carbon capture and storage, which are not proven to deliver effective offsets.

These problems mean that the guidelines are weak and do not impose responsibilities on emitters. The guidelines do not guarantee that offsets will ensure that there is no net increase in emissions in Australia from the Territory's onshore shale gas industry, as recommended by the 2018 Pepper

¹ <https://www.science.org/doi/10.1126/science.aan5201>

² https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf

³ <https://www.science.org/doi/10.1126/science.aaw6974>

Inquiry.⁴ This is a concerning position as fracking in the Territory will increase Australia's emissions unacceptably and will compromise global efforts to reach net zero emissions in a time frame which allows us to maintain a safe climate.⁵ Without effective and meaningful offsets, fracking should not occur. I am concerned that these guidelines will not ensure emitters offset their emissions and that this may mean that emissions from fracking and other activities in the NT go uncontrolled.

These guidelines should be substantially revised to (1) require all life cycle emissions generated to be estimated and genuinely offset for onshore gas projects, (2) ensure all emissions from all projects are offset, (3) remove references to indirect offsets, (4) ensure that only proven technologies and methods can be used for offsets and, thus, (5) remove references to unproven carbon capture and storage technologies.

Crucially, I also note that offsets are not a cost effective and efficient solution to reducing greenhouse gas levels in the atmosphere. Not pursuing fracking in the NT is the cheapest and most effective way of limiting emissions and helping to limit global temperature increases.⁶ With this in mind, fracking in the NT should not go ahead.

Thank you for taking the time to consider this submission and I look forward to reviewing the redrafted guidelines.

Yours sincerely,

Mia Sandgren.

Northern Territory

⁴ <https://frackinginquiry.nt.gov.au/news/community-update-31>

⁵ <https://australiainstitute.org.au/post/over-60-scientists-experts-call-on-chief-minister-gunner-to-honour-commitment-to-net-zero-fracking-emissions/>

⁶ <https://www.reputex.com/research-insights/report-analysis-of-northern-territory-gas-basin-ghg-emissions-and-carbon-costs/>

From:
To: [environment policy](#)
Cc: [Chief Minister](#)
Subject: Submission regarding the Greenhouse Gas Emissions Offsets Policy and Technical Guidelines
Date: Friday, 15 October 2021 4:09:39 PM

Dear Sir/Madam

Thank you for giving me the opportunity to comment on the Greenhouse Gas Emissions Offsets Policy.

I have lived in the Northern Territory for 34 years and the Territory is my home. When I first visited the Northern Territory in 1981 I fell in love with the magnificent natural places and the incredible cultural history that is part of these places. I have lived in Alice Springs and Tennant Creek and then raised a family in Darwin. Both my children live and work in the Territory and we still have remote adventures together in the Territory and therefore what happens to the development here is very important to me.

We have a climate crisis which is very real for us in the Northern Territory as we have increasing numbers of days over 35 degrees. The Pepper Inquiry from 2018 recommended that unless the life cycle emissions from fracking shale gas in the Territory be offset in full then fracking would have unacceptable climate impacts. This Draft Greenhouse Gas Emissions Offsets Policy does not impose any requirements on gas companies to offset their life cycle greenhouse gas emissions. The recommendation 9.8 of the Pepper Inquiry needs to be upheld.

Indirect offsets, such as contributing funding to research and development (R&D) that will support emissions abatement in the Northern Territory, are not recognised anywhere else in the world. Projects for carbon capture and storage could be considered as an indirect offset and there is little evidence that carbon sequestration works. In the proposed policy there is no clarity provided as to how the use of a third party entity for this R&D has complete independence from the proponents.

Given the unprecedented use of indirect offset, the ongoing failure of carbon capture to work and the lack of potential independence between third party entities and proponents, I strongly object to the inclusion of indirect offset being in this policy.

Kind regards

Robyn Liddle

Attention: NT Environment Policy inbox

Re: Greenhouse Gas Emissions Offsets Policy and Technical Guidelines

I've been interested to peruse this new policy document.

This policy clearly fails to meet its stated objective.

To contribute to a target of at least net zero emissions, rather than contributing to unbounded acceleration of pollution, NT offsets should exceed parity for new dirty industries.

Clearly this falls short. As we see elsewhere, this policy document merely stamps a 'Territory Proud' logo on whatever it is the Commonwealth might deliver for us. The sole focus of this policy appears to be ensuring that the pursuit of offsets guarantees activity in the NT – even to the detriment of the volume displaced from our carbon budget.

We are told:

To prevent duplication in offset delivery between the frameworks, any emissions that are offset to satisfy the Safeguard Mechanism may be subtracted from the amount of emissions required to be offset by an NT emissions offset approval condition.

In order to represent value, the NT policy should both contribute to and – at least somewhere – exceed the Commonwealth offsets.

However this policy allows for up to 50% of identified emissions to be addressed by nebulous 'indirect' offsets. This is a ridiculously high level of risk, compared to for example the 10% allowance for compensatory measures under the EPBC offsets policy¹. Even granted the qualification of 'reasonable confidence', this represents an unacceptable risk (likelihood cross impact) of non delivery, compared to commonwealth policy. As such, the NT policy determinedly pursues a lesser outcome for cases subject to the ACCU framework.

The multi-dimensional farce of section 8.2.1.1 is self-evident.

This nonsense is being presented to us in the context of recent highly discredited proposals for carbon capture, that belie the feint at 'reasonable confidence'. The requirement for 're-evaluation' upon failure after five years is ridiculous. Given that delivery is about a dollar amount rather than actual tonnage, this policy feature's status as a pollution permit, rather than genuine mitigation, is transparent.

By aiming to fall short of the Commonwealth framework, direct offsets under the NT policy will provide no additional value beyond falling short of the Commonwealth targets, which in turn, to date, contribute to a policy that falls short of net zero by 2050. Indirect offsets, whose value is at least reduced by a probability factor, will by design not make up the difference.

An NT policy which determinedly pursues outcomes below the Commonwealth target, leaves us entirely reliant on federal policy. Clearly the NT target is insincere.

Unqualified reference to:

the capacity of the project, proponent and industry to avoid, mitigate or offset emissions

threatens to be a get-out-of-jail-free card to some of the most objectionable, dirtiest insults facing the NT.

A project or proponent that is unable to avoid, mitigate or offset emissions is unviable. But what role should consideration of an industry's capacities play in an offsets policy?

This question is precisely the subject of relevant carbon trading frameworks, and should not be second-guessed by the NT policy. If a project has capacity to mitigate or offset emissions, then it should be able to earn credits under the Commonwealth framework, which can then be applied as direct offsets. If a project has no such capacity, it must invest in direct offsets elsewhere. The confluence of some external assessment within the decision to require offsets or set the level of emissions to be offset is an unacceptable corrupting feature of this policy.

We have seen how excessive claims of the capacity for exports to mitigate non-existent emissions overseas have been effortlessly applied to bid for an undeserved social license to new gas exploitation. The application of rubbery figures, that understate pollution and over-estimate displacement, is an artless ploy that has been well exposed elsewhere.

Territorians were told that not only would the Inpex project make us rich (*it didn't*) but would also play a big role in solving climate change². This, we were assured, was because gas is a Transition Fuel; a stepping stone on the way from dirty coal and oil towards truly clean renewable energy solutions.

But the value of gas in energy transition is not a fundamental property of the fuel itself, rather a capacity that might have been realised within the right context. Proponents make big claims for the carbon savings of gas over coal, but fall short on two counts. First, the lack of any international framework within which to assess that new gas has actually displaced pre-existing dirtier coal; and secondly, the growing evidence of previously un-measured and under-estimated fugitive emissions from gas mining and processing. Some analysts warn that the un-accounted and under-accounted³ carbon burden of gas⁴ balloon the claimed 33% less pollution to approach equivalence.

Natural gas burns cleaner than coal. But that's only part of the story; and methane emissions along the fuel chain take some of the shine off the industry's rosy promises.

Even allowing that the full life-cycle carbon burden of NT gas may be less than that of coal, there's no evidence that it has - or ever will - actually displaced coal. Instead, it seems that NT gas - both current off-shore drilling via Darwin LNG plants, or proposed on-shore fracking for shale gas - is going to clients who are growing consumption of all dirty fuels.

Our current big LNG projects - the Inpex Ichthyus project, and ConnocoPhillips' Bayu Undan, are sending the full complement of gas to Japan, where new coal plants⁵ are still being built. The fracking hopefuls are all looking to export, and although some of those export markets feature declining coal consumption, the uptake in dirty gas outpaces the decline in dirty coal, and none have a credible plan for transitioning beyond these dirty fuels to clean renewable energy alternatives. So even where gas is facilitating less reliance on coal, it is not being done within a framework of reducing emissions or transition to renewables.

This policy is yet another great disappointment and illustration of failure by the climate vandals in NT Government.

The best this policy can contribute is to meet commonwealth standards. The Commonwealth continue to fall short of acknowledging a net-zero by 2050 target. Therefore, this policy aims to contribute to a target less ambitious than the claimed net-zero by 2050. In practice, the loophole of up to 50% indirect offsets, which do not guarantee any mitigation, shows that NT Government remain satisfied to contribute nothing to exceeding whatever poor target the Commonwealth demand of us.

The NT Government remain satisfied to rely 100% on the fake '*meet and beat*' lies coming from the climate-conflicted coalition cabal that continues to shame our nation internationally for gross negligence on climate.

Instead of decorating the Commonwealth agenda with crocs and iced coffee, we should simply disallow new dirty industry. Cut our losses on fossil fuel exploitation and act now to build those industries and employment opportunities that will remain viable after oil & gas mining are recognised as international crimes.

Justin Tutty

ref:

1. EPBC Act Environmental Offsets Policy, 2012, Environment Australia
2. <https://www.abc.net.au/news/2008-10-01/henderson-thinks-global-not-local-on-inpex/527570>
3. <https://www.abc.net.au/local/stories/2012/11/15/3633615.htm>
4. <https://www.livescience.com/52715-natural-gas-not-as-clean-as-people-think.html>
5. <https://nocoaljapan.org/the-problem/coal-expansion-in-japan/>

14 October 2021

Dear Ministers, Policy Advisors and Departmental Staff,

My name is Dr Scott Price, I work at Katherine Hospital as a rural generalist GP. I love the people, I love the job and the lifestyle here. The Katherine region is a unique and spectacular part of the NT outback belonging to the Jawoyn, Dagoman and Wardaman Peoples. The incredible Nitmiluk Gorge, Katherine hot springs and Edith Falls are just some of the impressive natural and cultural wonders located here.

It can be very hard to recruit doctors to remote outback towns. Harder still when these places are already experiencing temperatures 4 degrees above long term averages. The CSIRO has predicted that due to climate heating the average number of days over 40°C in the Katherine region will increase up to 35 days a year by 2030. In 2019 there were 54 days of 40°C or above in Katherine. These significantly hotter temperatures are already occurring more often, more than a decade earlier than projected.

I was working in Katherine during the power blackout in November 2020; which affected 49,000 NT residents across the Top End. At that late time of year during the build-up the heat and humidity can already be deadly - especially for the very old, very young or chronically ill members of our community. On that day it was 39 degrees in Katherine. The power went out just before 4:00pm. I left the hospital – running on generators – and was immediately hit by an oppressive wave of unbearable heat. My unit was an oven, it was impossible to stay inside. I was trying to relax and ride the situation out calmly; but it was scary. The concern I felt for the Katherine community made me incredibly anxious. Not everyone has an air-conditioned vehicle to escape to – I feared vulnerable people might die that day.

The human health impacts of climate change are already very well known. Here in the NT, we can expect more heat related deaths, illness and injury, with our most vulnerable the most severely impacted. With 54 days above 40⁰ Celsius; Katherine is already experiencing a level of extreme heat associated with significantly increased illness and death. Just as climate change further stresses our essential ecosystem services, so too will the impacts of climate change result in additional burdens on our stretched public health system. It is from this human health perspective that I write this submission on the *Draft Greenhouse Gas Emissions Offset* policy.

My first major concern with the Draft Offset policy is that the NTG appears to have misunderstood the intended purpose of offsets. Offsetting is not a substitute for preventing greenhouse gas pollution in the first place. The International Energy Agency has made a stark warning that no new oil, gas or coal developments can occur from 2021 if we are to attain net zero by 2050 – the NT Labor governments own commitment. The IPCC this year declared an even starker warning, “Code Red” for humanity, with this current decade to 2030 the most critical for limiting as much damage as possible to the global climate. This week 30 world leaders made headlines banding together with Joe Biden to strive for drastic cuts to methane gas emissions. This is because methane gas is now recognised as one of the most potent greenhouse gases of all and reducing methane emissions will be immediately impactful in limiting warming to 2 degrees. On this basis alone the Beetaloo gas developments should not be pursued, especially considering the enormous scale of projected emissions – an increase of up to 22% of Australia’s total current emissions every year.

In 2018, the best practice Pepper Inquiry recommended that emissions from shale gas development in the Northern Territory be “fully offset so that there is no net increase in the lifecycle greenhouse gas emissions emitted in Australia from any onshore shale gas produced in the NT”. This recommendation 9.8 is what must be wholly fulfilled by the Draft Offsets policy should the Beetaloo or any other new onshore gas developments go ahead. In its current form the policy does not fulfil this recommendation.

Key issues of concern that I have with the current draft policy are:

- It does not refer to nor fulfil in anyway recommendation 9.8 of the Pepper Inquiry.

- It does not require gas companies to estimate in full or directly offset all life cycle greenhouse gas emissions. This includes scope 3 emissions whether produced domestically or internationally.
- It leaves up to the discretion of the relevant government decision-maker whether offsets are required at all, and for what emissions. This discretionary element must be removed and redrafted with an objective and transparent decision-making process with clearly agreed thresholds for offsetting emissions. For example, it should never be possible for a decision-maker to say that offsets are not required at all for an onshore shale gas project, or that only offsetting of scope 1 (upstream) emissions is required. Such an outcome would be inconsistent with recommendation 9.8; whereby all life cycle emissions must be offset.
- The newly invented category of “indirect offsets” must be removed from the policy. Funding research and development into technologies or new methodologies to reduce emissions (hopefully) in the future is weak, disingenuous and dangerously reckless considering the context of the climate crisis. I fully support innovation and aspirational development however considering the unacceptably high risks it is essential offsets occur through proven, established and recognised technology. I note that commitment to carbon sequestration and storage by the gas industry to the Western Australian government to enable gas development to proceed has been a \$100 million costly failure and led to 2.64 million tonnes a year of CO2 entering the atmosphere per year since 2018. Such an approach by the NTG would be dangerous and reckless, particularly as decision-makers only need have “reasonable confidence” that the new technology or practice will actually reduce emissions at some unspecified time in the future.

To conclude, it is clear from a human health perspective and in the context of the current climate crisis facing humanity, that the Northern Territory government should cease all new onshore gas projects. If new gas developments are pursued, then this Draft Offsets policy must transparently and robustly comply with recommendation 9.8 of the Pepper Inquiry, that all life cycle emissions are genuinely directly offset.

A survey of 362 Northern Territory doctors found that 34% were already considering leaving due to increased temperatures because of climate change. Doctors have the capacity to relocate when things get unbearably hot. But the suffering communities they leave behind do not. In the redrafting of this policy I urge you to put the long-term health of these communities at the forefront of your minds.

Sincerely,

Dr Scott Price,

Katherine NT

Reference: Catherine G Pendrey, Simon Quilty, Russell L Gruen, Tarun Weeramanthri, Robyn M Lucas, Is climate change exacerbating health-care workforce shortages for underserved populations? The Lancet Planetary Health, Volume 5, Issue 4, 2021.

Doctors for the Environment Australia submission on the Industry Research and Development (Beetaloo Cooperative Drilling Program) Instrument June 2021.

14/10/2021

Dear Ministers and Policy Advisors,

My name is Allana Brown. I'm 35 and have two young daughters, Hetty Wren (she just turned one) and Pearl (four years old). My husband and I moved to Darwin to have our babies and to be closer to my family who have lived in the Territory for well over a decade. We just love the beauty, culture and lifestyle of these Larrakia lands. Every chance we get we go camping at Litchfield, exploring Kakadu and go fishing, crabbing and birding. I love the turkey bushes bursting into pink confetti during the dry. I love hearing the magpie geese honking overhead in the evenings. The bright green of the new spear grass after the wet contrasting with the flaky grey paperbarks – the Territory is my heartplace, it supports my mental health, is a part of who I am and my family. I want my young children to have the opportunity to live here and love it as much as I do.

The reason I am writing this submission is because I believe the NTGs *Draft Greenhouse Gas Emissions Offsets Policy* puts all this at dire risk. Needless to say, I care deeply about my own children's future but also the future liveability of the Territory for all children and families. Right now Darwin has around 11 days a year over 35 degrees Celsius. Under a midrange global emission scenario, Darwin is predicted to have an average of 43 days a year above 35 degrees by 2030 (Hetty Wren won't even be 10 years old by then). By the time Hetty is 20, over three months of the year is predicted to be over 35 degrees! Who would choose to stay and live in such conditions?

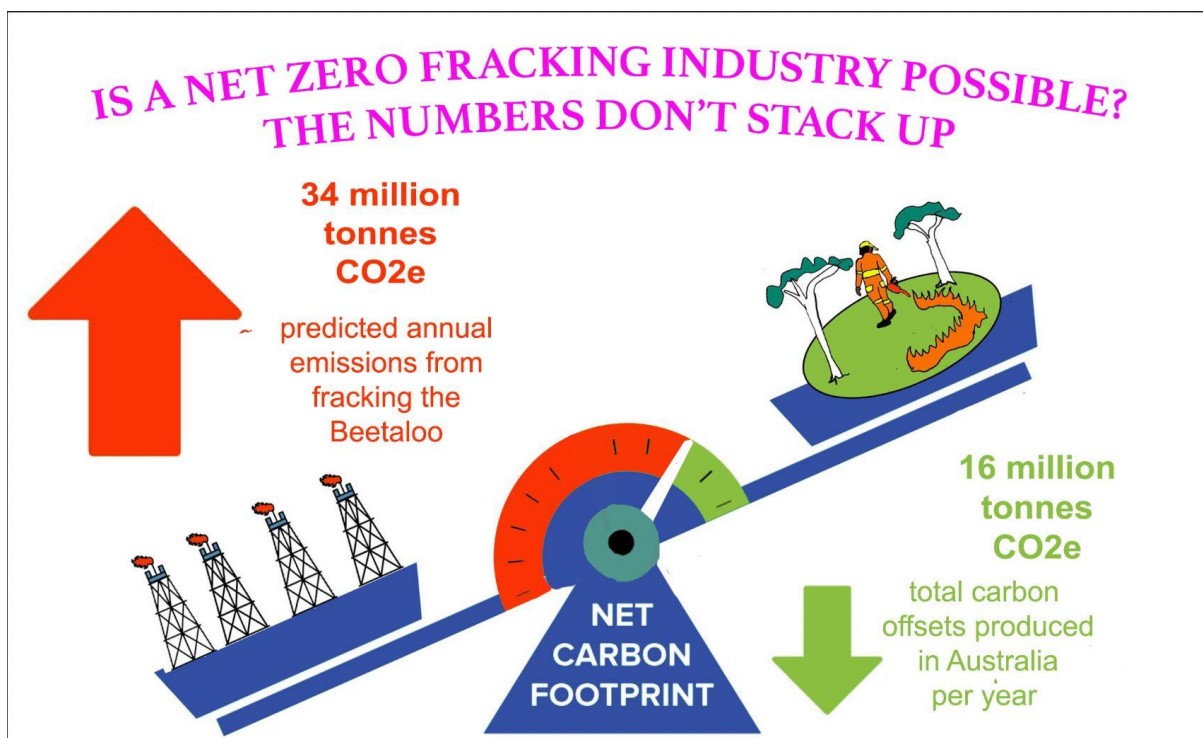
As such, I am completely against any new gas developments – in particular the Beetaloo which is a globally significant greenhouse gas bomb. Despite being in a climate crisis with temperatures already 1.5 degrees hotter, the IPCC calling a "code red" for humanity and the IEA demanding no new gas developments; the Gunner Government appears set on pursuing this disastrous industry. Getting this offsets policy right appears to be our only hope in limiting further, sustained damage to the climate and our own lives.

I believe the Offsets Policy can be made as simple and straightforward as this:

All lifecycle greenhouse gas emissions in Australia from any onshore gas produced in the NT will be fully and genuinely offset, as per Pepper Inquiry recommendation 9.8

The Gunner government must not backflip on his promise to the Territory people that all life cycle emissions in Australia from fracking shale gas in the Territory be completely offset. The draft offsets policy as it currently stands does not fulfil this promise.

The Draft Offsets Policy is vague, opaque, flimsy and discretionary. There are no clear thresholds for when or even how companies will offset their emissions. In fact there is no clear requirement for gas companies to offset fracking emissions at all. It is deceptive, misleading and dishonest – making up new terms like “indirect offsets” whereby polluting companies can pay for research and development into future offsets methodologies. This made up category is clearly designed just to keep monetary resources in the Territory, and has been included because there will be simply too many emissions from the gas projects to offset. The below diagram from Central Australian Frack Free Alliance demonstrates this point clearly:



Furthermore, how many Australian Carbon Credit Units are still available for offsetting? Savannah Burning projects across the Top End for example already have contracts in place – claiming these as offsets would be ‘double dipping’ and would not satisfy additionality requirements.

I also refer to the Open Letter published last month to Chief Minister Gunner from 60 of Australia’s top scientists. The letter calls for requiring all lifecycle Greenhouse Gas emissions in Australia from any onshore gas produced in the NT including scope 3 emissions to be fully and genuinely offset – if this cannot be met then the gas developments must not go ahead:

**Honour Your Commitment
All Emissions Must Be Fully Offset or Gas Fracking
Should Not Go Ahead**

An Open Letter to Chief Minister Michael Gunner

Please fulfil your commitment to no net increase in greenhouse gas emissions from NT fracking.

In 2018, many of us strongly urged that gas fracking should not go ahead in the Northern Territory.

This was based on the scientifically robust carbon budget framework which shows existing fossil fuel reserves need to remain unburned. New fossil fuel development is incompatible with the goal of the 2015 Paris climate agreement that aims to limit the rise in global temperature to well below 2.0°C above pre-industrial levels and to make every effort to limit the rise to 1.5°C.

Since then, the situation has become more urgent.

The rapid escalation of climate change and its impacts was underlined by the latest IPCC report, and supported by the International Energy Agency's (IEA) pathway to limit warming to 1.5 degrees. This leaves no room for major new fossil fuel developments like fracking across the NT.

The NT is particularly susceptible to climate change. In Darwin the number of days over 35°C is expected to increase from 11 days per year currently to up to 308 days in 2070 if emissions are not reduced quickly.

Climate change is also increasing the frequency and severity of fires, floods and other extreme weather events. Sea-level rise is accelerating, and sea levels along the NT coast are rising faster than the global average.

Chief Minister Gunner, you committed to the faithful implementation of all the recommendations of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory (Fracking Inquiry), including the critically important Recommendation 9.8:

That the NT and Australian governments seek to ensure that there is no net increase in the life cycle GHG emissions emitted in Australia from any onshore shale gas produced in the NT.³⁴

The Inquiry report makes it clear: "the increase in life cycle GHG emissions in Australia from any onshore shale gas produced in the NT **must be fully offset.**"

Lifecycle emissions include all emissions from the production, processing and ultimate combustion of the gas if within Australia, which are known as scope 1, 2 and 3 emissions.

Chief Minister Gunner, for you to honour your commitment the NT offset policy must require all lifecycle Greenhouse Gas emissions in Australia from any onshore gas produced in the NT including scope 3 emissions to be fully and genuinely offset.

If this cannot be achieved, a critical recommendation has failed, and fracking should not proceed.

The Gunner government is treating my children's future, and the future of all Territory kids, in absolute contempt by inventing this "indirect" offset category. This draft policy allows gas companies to undertake or contribute to research into unproven and expensive carbon capture and storage methods, or other new methodologies, to be counted as offsets. That is a backflip and does not in any way satisfy the Pepper Inquiry recommendations.

My other key concerns with this policy that require significant redrafting include:

- It does not require gas companies to offset their life cycle emissions. Instead, that is at the discretion of the relevant government decision-maker.
- It does not require gas companies to estimate their life cycle emissions generated in Australia (which would be required at a bare minimum to know the size of the offset for those life cycle emissions);
- It does not require gas companies to say how they propose to offset their scope 3 emissions (whether produced in Australia or elsewhere).
- It does not refer to recommendation 9.8 of the Fracking Inquiry.
- It leaves up to the discretion of the relevant government decision-maker whether offsets are required at all, and for what emissions. There is no transparency here nor any clear and pre-determined thresholds against which these decisions are made. Under the current draft policy it would be possible for a decision-maker to say that offsets are not required at all for an onshore shale gas project, or that only offsetting of scope 1 (upstream) emissions is required. Such an outcome would be inconsistent with recommendation 9.8;
- It enables offsets of a very low quality and questionable validity, including through the invented category of "indirect offsets". Indirect offsets consist of funding research and development into technologies or practices that might reduce emissions in the future. Such

an approach would be without precedent, particularly as decision-makers only need have “reasonable confidence” that the new technology or practice will actually work.

- The Draft Offsets Policy might enable gas companies to say that their expenditure on unproven CCS research and development “offsets” their exorbitant greenhouse gas emissions, a perverse outcome. The Northern Territory Government should not accept CCS, or research and development about CCS, as a category of offset.
- The Offsets Policy must explicitly state: *All lifecycle Greenhouse Gas emissions in Australia from any onshore gas produced in the NT including scope 3 emissions will be fully and genuinely offset.*

I would like the Department to deeply consider and act upon these points raised in my submission, along with the following point – Offsets are designed to neutralise emissions, but they cannot reverse the burning of fossil fuels. **The most important thing to do is find ways to prevent the burning of fossil fuels in the first place.**

You can contact me should you wish to discuss this submission further. Yours faithfully,

Allana Brown,

Fannie Bay.

From:
To: [Chief Minister; environment policy](#)
Subject: Draft Greenhouse Gas Emissions Offset Policy and Technical Guidelines - Submission
Date: Friday, 15 October 2021 8:13:30 PM

Michael Gunner,

I would like to begin this letter by stating that there has never been a time in my life where I have felt more uneasy about the future.

The future for myself, my family, the community, the Northern Territory, the planet and our social, political and economic stability.

I know I am not the only person with these concerns, many other young Australians and Territorians feel the same, those who are the next generation to have children, buy homes and progress in their careers.

We feel an overwhelming urge to act now on climate change before the possibility of a future as we know it is unobtainable.

I want my children to be able to see the beautiful Northern Territory as it was when I grew up. With an abundance of wildlife, clean water and consistent afternoon storms.

This recent dry season has highlighted the reality of climate change to me, the unpredictable weather patterns and rainfall with increased temperatures have myself along with many scientists and community members worried about the trajectory of our current path. It simply is not a sustainable long or even medium-term plan to continue emitting greenhouse gases at the rate that we currently are.

More concerningly I don't see that the Draft Greenhouse Gas Emissions Offset Policy and Technical Guidelines addresses the magnitude of our situation locally or globally.

The Northern Territory has the opportunity and the natural resources to make cleaner greener renewable energy that is more affordable to its community through solar and even tidal energy. This would create more local jobs throughout the research, construction and ongoing maintenance of the projects and the infrastructure would not need to be removed after 10 years unlike mining projects.

This would also open up training and educational opportunities and could put the NT on the map for sustainability, we have so much potential to be a leading role model in sustainability in Australia. This alone would encourage new community members and boost economic growth.

I understand that fracking has already gone ahead in areas throughout the Northern Territory and I understand the immediate practicality of using non-renewable resources for energy, however we must move away from this as soon as possible and genuinely mitigate the environmental damage it creates in the meantime.

The Draft Greenhouse Gas Emissions Offset Policy and Technical Guidelines is simply not sufficient in ensuring large emitters offset their emissions.

If we cannot legitimately and physically offset our emissions, then we should not create them.

If COVID-19 has taught us anything, it's that, when necessary, the community can come together and act hard and fast to create immediate change.

Climate change is a much larger issue than COVID-19 and requires immediate action from everyone, particularly our leaders.

We must be lead in a constructive way towards a positive future, this is a leader's ethical responsibility to do so.

I hope that you take the community concerns seriously and address them appropriately.

Kind Regards,

Tarni Brown

Long Term NT Resident

From:
To: [environment policy](#); [Chief Minister](#); [Electorate Nightcliff](#); [Minister Fyles](#)
Subject: Submission for the NT governments Draft Greenhouse Gas Emissions Offset Policy
Date: Thursday, 14 October 2021 8:42:58 AM

Hi,

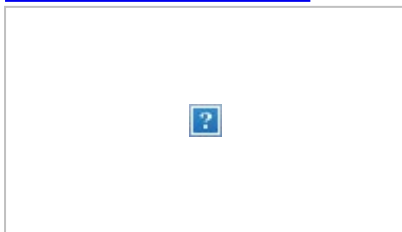
I'm writing as a concerned Territorian - I have been living in Darwin for the last 12 years and now call it home. I am terrified and deeply saddened to think that it may soon be destroyed by fracking. It breaks my heart to think that this decision has come from another Territorian - Michael you grew up on this land, a land that is blossoming with wildlife, fresh waterways, indigenous culture, fresh clean air. This decision to Frack is not one made by our community - our community detests the very thought of poisoning our land, waterways and air. I am furious with your reckless and impactful decision, there is no healing once the fracking begins. Our temperature is already starting to rise - once the fracking starts it will be unbearable to live here.

The new category of carbon offsets that the NTG has invented and termed 'indirect offsets' are not acceptable and all reference to 'indirect offsets' should be removed from the policy. It is reckless to allow companies to pollute now on a flimsy hope that years from now they might be offset.

Your full agreement with the 60 acclaimed climate scientists and experts who recently wrote in an open letter stating the following, "Chief Minister Gunner, for you to honour your commitment the NT offset policy must require all lifecycle Greenhouse Gas emissions in Australia from any onshore gas produced in the NT including scope 3 emissions to be fully and genuinely offset... If this cannot be achieved, a critical recommendation has failed and fracking should not proceed."

From an extremely upset and disappointed community member.

TARZAN DESIGNS JUNGLES



From:
To: [environment policy; Chief Minister](#)
Subject: Offset policy submission
Date: Friday, 15 October 2021 4:17:52 PM

October 15, 2021

Dear sir

I wish to make a quick submission to the Greenhouse Gas Emissions Offset Policy.

This new policy to 'off-set' emissions for the energy companies is farcical and cynical, filled as it is with wishful thinking (eg unproven carbon capture) and open to obfuscating corporate abuse.

I simply do not trust any of the energy companies who are circling the Beetaloo Basin like underfed wedge-tailed eagles, either in the short or long term, especially as they will largely drill in our unique remote wilderness areas and are driven by returns to mostly international share-holders, not to the denizens of the Territory, and the ecological health of our country. Their only 'skin in the game' is return on investment. Accurately measuring their emissions will be terribly fraught with under-reporting and inaccuracies, while creating another expensive layer of bureaucracy in an overburdened public service. How can anyone correctly monitor the invisible plumes of methane rising from a single well, let alone the hundred that could blight our country side?

This off-set policy is loaded with weasely wriggle-room and filled with bureaucratic flatulence. A simpler solution would be to not to frack at all.

What has been mooted as off-sets (such as reforestation and development of clean(er) energy) should be immediately invested in anyway, not as a 'get-out-of-jail card for companies pursuing short term profits over long term sustainability.

I arrived in the Territory in 1970, as an eight year old in 1970. I went to Millner Primary the year after it opened and thrived in the Territory's open and (seemingly) egalitarian life-style.

I was one of many who would brave the noon day sun at Gardens Oval to play colts U18 footy at Garden's Oval, sans sunscreen. I did my secondary and tertiary education here in Darwin and have made a good living in this place and my two children have chosen to remain in Darwin to build their careers.

Fast forward to the present and temperatures are at least a degree hotter than the '70s and the number of +35 degree days in the calendar year have worryingly grown. In the light of the manifold reasons to stop the practice in its tracks, the decision by the Gunner Government to proceed to with the practice of gas extraction through 'fracking' was an enormous disappointment to me and my family. Will the Top End become unliveable in the next twenty years, as predicted? Will we be forced to abandon our homes?

As a musician in the Swamp Jockeys, we wrote a song in 1988 called **Greenhouse**, about the gradual warming of the planet through carbon emissions. **Thirty-three years ago**. Scientists around the world are screaming for a halt to fossil-fuel projects. The UN Intergovernmental Panel on Climate Change has gone '**Code Red**' while we idly discuss how to justify our filthy practices with 'off-sets'.

Fracking in the NT will leave us degraded in many ways. As the world is moving away from fossil fuels to power the planet, the NT will be rightly seen as a recalcitrant and poisonous place.

Today, I stood with hundreds of NT students, who passionately called for an immediate shift from the exploitation of fossil-fuels. I urge those at the wheel to do a quick 'u-ey' and ban any further development of gas extraction in the Northern Territory while we have the chance. What part of a

'climate emergency' does the Government not get?

As a newly minted grandfather I am terrified for the future for the children of the Territory. The Federal and Northern Territory Governments have betrayed their future, and if we are party to the corruption of the atmosphere, we will be rightly basted in our own foolishness and our much trumpeted 'unique Territory life-style' will waste away like a bloated bull's carcass in the sun.

Todd Williams