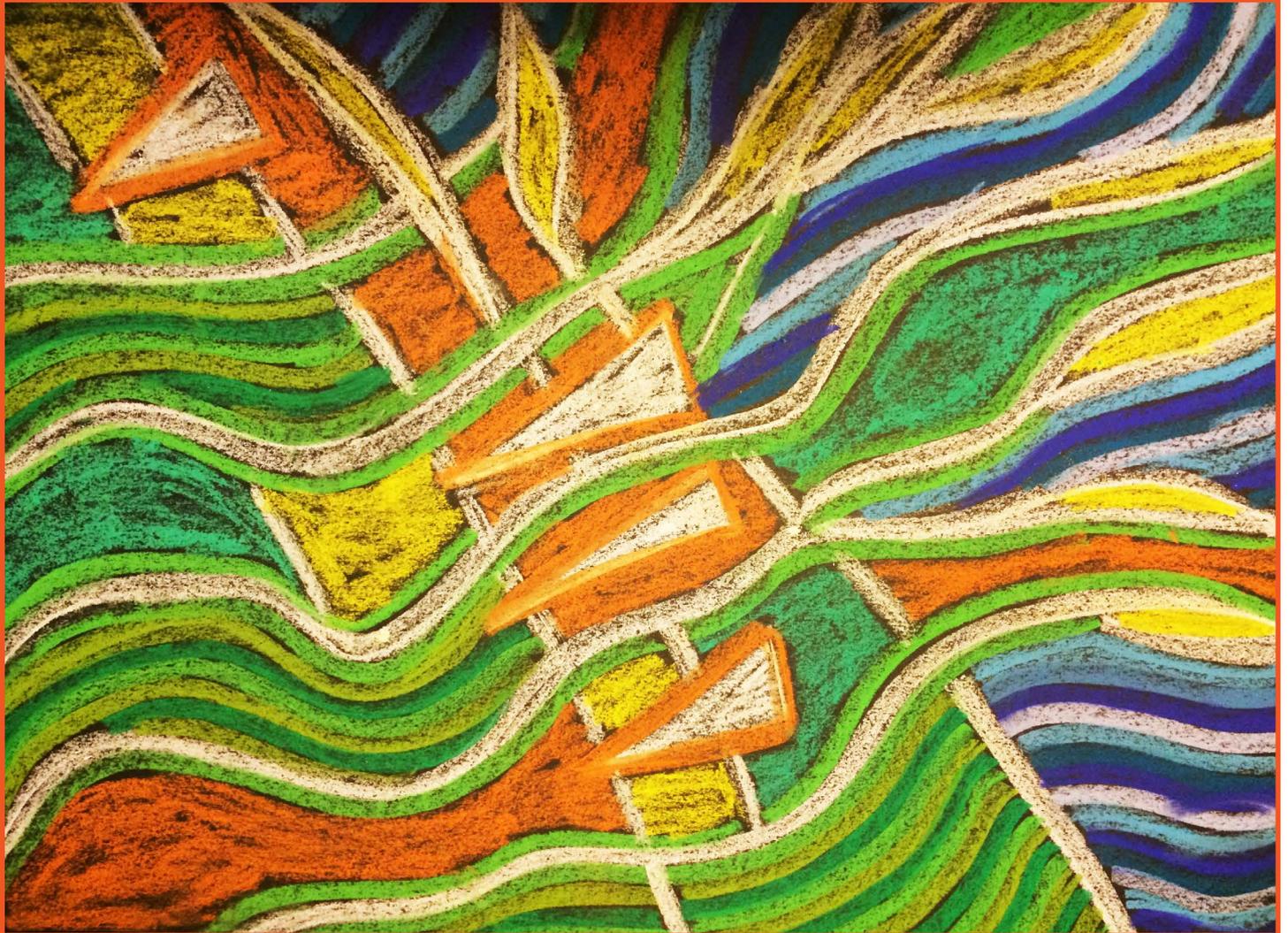




# DEVILS' ADVOCATE



## AUTUMN 2016



A FREE PUBLICATION FROM  
*Healthy futures for arid lands and people*  
**ARID LANDS ENVIRONMENT CENTRE**  
[www.alec.org.au](http://www.alec.org.au)

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The Devils Advocate is the quarterly newsletter of the Arid Lands Environment Centre.

**The deadline for submissions for the Winter edition is Friday October 21st 2016.**

Articles, pictures, poetry, letters, welcome.

Email communications@alec.org.au

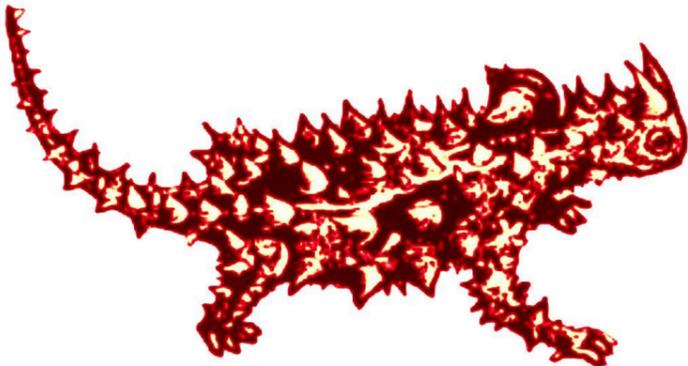
All opinions expressed within Devils Advocate are those of the author alone, unless explicitly expressed.

The Devils Advocate is edited and designed by Nicole Pietsch, ALEC's Communications and Campaigns Manager. It is printed on 100% recycled paper.

Front cover image by Peachy  
Back cover image by Carmel

*The Arid Lands Environment Centre acknowledges and pays respect to the traditional owners, both past and present, of this region.*

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**Arid  
Lands  
Environment  
Centre**

# ALEC DIRECTORS' WELCOME

G'day and welcome to the spring edition of the Devil's Advocate. It's exceptionally busy around the Arid Lands Environment Centre (ALEC) at the moment in between a Federal and Territory election, organising our peak event of the year desertSMART EcoFair and transitioning over to a new website and database organising software.

We are also hosting a Green Army team, Alice Springs Community Garden Committee, RePower Alice Springs and Central Australian Frack Free Alliance meetings. ALEC is also represented at the Environment Defenders Office NT Board; Alice Springs Town Council Environment Advisory Committee; Alice Springs Regional Weed Reference Group; Alice Springs Regional Economic Development Committee (Acting Chair); we're also awaiting confirmation to return to the Alice Springs Water Advisory Committee and most recently being appointed to the Desert Knowledge Australia Board. It has indeed been a busy year.

The town is also buzzing. Tourists have flocked to Alice Springs and central Australia this season to experience 'the red centre', Australia's outback. It is a beautiful place and it is great that so many people are visiting. If you are reading this and you haven't spent much time out here please remember that the land sings and people out here still sing those songs – so please treat it with love and respect.

Take it easy on the roads and give way to roadtrains. Don't take more firewood than you need, and leave no trace of your camping. Have a wonderful time, and for all of us locals - it's the best time of year to get back out into nature.

We have a new Prime Minister. Well, not new but one elected by the people rather than the party. It was a close race but the Coalition has won outright and we await the make-up of the Senate. Josh Frydenburg is now Minister for Energy and

the Environment and Matt Canavan Minister for Resources and Northern Australia. Greg Hunt has moved from Environment Minister to Minister



for Industry, Science and Innovation. How this will all play out is yet to be determined. Both Frydenburg and Canavan are supporters of the coal industry. Frydenburg is a fan of nuclear power, while Canavan denies that climate change is happening. It's not a great outcome. We need leaders who will support renewable energy, protect the environment and ensure the natural assets of our country's north benefit those who live there foremost.

The EcoFair is on and following this is the Ten Deserts meeting, with people coming to Alice Springs from around the desert country of South Australia, Western Australia and the Northern Territory to meet to discuss the impacts of and action on buffel grass, coordinating fire regimes and the potential for developing a carbon economy. Land managers, rangers, researchers and conservationists are coming together to foster stronger collaboration across the arid lands. It truly is exciting and an honour to provide the organisational support to enable it to happen.

Enjoy reading this edition of the Devil's Advocate, the official zine of the Arid Lands Environment Centre. Thanks to the renewed members and Desert Defenders who have continued to support ALEC's vision for 'healthy futures for arid lands and people' through what has been a challenging time since operational funding ceased.

Thanks to the Board, staff and volunteers who have over the past month supported ALEC



with phone banking, holding stalls, reading environmental impact statements and other activities that have supported ALEC to grow to the largest it has ever been – more than 320 members and almost \$20000 in donations in our End of Financial Year Donor Campaign. This is a true testament to the spirit of the Alice Springs community and the importance of the work that ALEC does.

It's still a constant battle to get any wins

## ALEC has a new website!

Same old address [www.alec.org.au](http://www.alec.org.au), but it is a new platform and highly functional.

This is all thanks to Nicole Pietsch, ALEC's Communication Manager and website designer Corey from CodeNation, ALEC is ready to take on the world. Powered by NationBuilder, community organising software used by many different organisations around Australia and the world including environment groups, unions and political parties.

The software integrates our social media and website to enable people to interact with ALEC in ways that were previously unimaginable. For example, ALEC can now run online petitions through our website. We can organise events. We can email people with certain interests eg. Community garden, anti-nuclear and fracking etc. We can better track our donations and memberships.

Moving over to Nationbuilder will make a big difference as we learn how to make the most of it and start working to foster community leadership. This means not always asking supporters to get behind ALEC as the staff drive the agenda and take on the workload, but to distribute the leadership to increase people's stake in ALEC but also increase ALEC's stake in

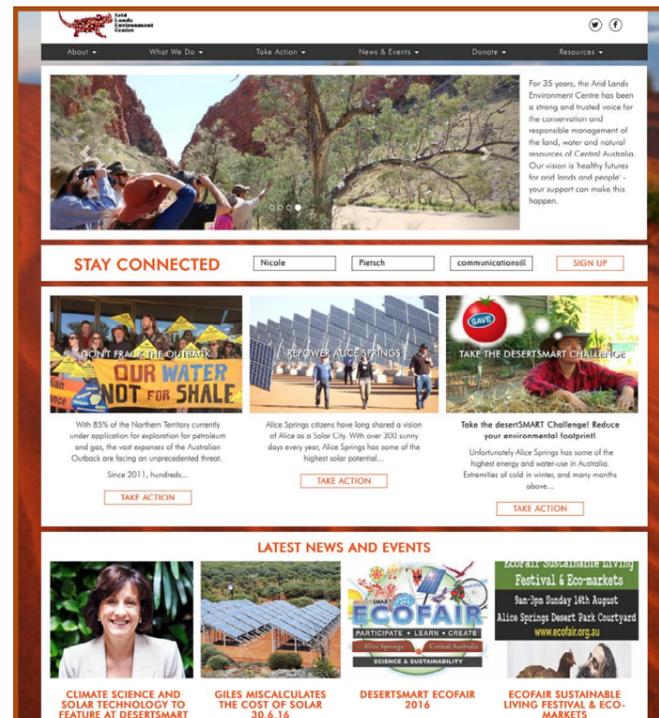
for nature but the NT election provides an opportunity for the environment and action on climate change to be on the agenda. See the NT Election Snapshot. Check out the ALEC website to see how you can get involved [www.alec.org.au](http://www.alec.org.au)

Have a great Central Australian festive season.

*Jimmy Cocking*

the community. More people doing more things to support our vision of 'healthy futures for arid lands and people.' This is how communities build power to actually change things rather than having to respond to issues and inappropriate developments.

We're looking for volunteers to help us to enter supporter data into the system after events. If you have a spare hour or two at some time, let us know and you can help ALEC grow its influence.



Ten Deserts Annual Workshop is happening in Alice Springs on August 16-17th 2016.

The Ten Deserts Initiative is a collaboration of conservation groups, indigenous land managers and Natural Resource Management organisations to support on-ground biodiversity conservation and land management outcomes in the arid lands of South Australia, Western Australia and the Northern Territory.

The program for the workshop can be downloaded at <http://tendeserts.org/2016/07/13/ten-deserts-2016-annual-workshop/>

The purpose of the Ten Deserts initiative is to:

- Promote integrated cross-border/tenure approaches to critical ecological threats
- Increase the impact of cross-border collaboration
- Increase the profile of the value of Australia's desert country and the challenges of solving complex issues in remote regions
- Connect disparate and remote partners to attract and make better use of available resources
- Attract additional resources into Central Australia

The Arid Lands Environment Centre coordinates Ten Deserts and facilitates quarterly working group and annual face-to-face meetings.

## Ninu Knowledge Festival Kiwirrkurra June 21-23

Last month, ALEC Director Jimmy Cocking represented both the Arid Lands Environment Centre and the Ten Deserts Initiative at the first ever Ninu Knowledge Festival, held at Kiwirrkurra 800km west of Alice Springs. Ninu is the Pintupi name for Bilby.

The Festival had more than 150 people attend including the Threatened Species Commissioner Gregory Andrews, 20 different indigenous ranger groups from as far as the Kimberley, Kalgoorlie and from across the deserts in South Australia and the NT, scientists, Save the Bilby Fund and a host of other people engaged in conservation work to support the threatened *Macrotis lagotis*, the Greater Bilby.

ALEC was a supporter of the event through providing in-kind technical expertise for the many and varied presentations. This provided a great opportunity to be more engaged in the event and to meet a wide range of people. It was fascinating to hear people's accounts and dreaming stories associated with the ninu. The species that benefit from sharing bilby burrows and the key threats of buffel grass, big hot fires, feral cats and foxes. I've never been one for furry





animal campaigns but the bilby offers a catch all for the issues affecting land managers.

The talks were focused on sharing knowledge and data of ninu sites, learning skills for monitoring and better understanding the key threats to bilbies and field trips that included John Read's cat grooming traps <http://www.abc.net.au/news/2016-04-20/feral-cat-control-robot-trialled-qld/7338848>, drones for conservation and monitoring, cat hunting, tracking and trapping.

It was a fantastic trip and ALEC was very proud to support the world's first Ninu Knowledge Festival. Everyone who attended were excited by the potential of working together in a coordinated way. The next steps will be building towards collaborative projects that will raise the profile of the bilby and the efforts to protect its habitat and livelihood across the nation. This was the first event organised by the Indigenous Desert Alliance.

**Jimmy Cocking**

Read more here:

- <https://www.theguardian.com/commentisfree/series/first-dog-on-the-moon-at-the-bilby-summit>
- <http://www.abc.net.au/news/2016-06-24/bilby-protection-festival-in-australias-most-remote-community/7539836>
- <http://www.abc.net.au/radionational/programs/breakfast/the-indigenous-rangers-saving-bilbies-in-wa/7532076>



## Election Snapshot

The Northern Territory election is scheduled for August 27. It will have been a full 4 years since the Country Liberal Party was elected. From an environmental perspective it has been a tough period including:

- Operational funding for ALEC, Environment Centre NT and Environmental Defenders Office NT were completely cut in 2014
- COOLmob funding ceased in 2013
- Over-allocation of Ololoo aquifer – court case
- Millions of dollars of support for onshore shale gas fracking
- Relaxing of baiting of dingoes - NYE 2015
- Lack of support for renewable energy in town centres
- Lack of climate policy
- Relaxing landclearing regulations
- 'Independent EPA' – shambolic environmental regulatory processes

### What's on offer in the NT Election:

**ALP** - comprehensive water policy and commitments, restoration of operational funding for a policy officer, reviewing all water licences since 2012, 50% NT RET, Environment Minister assessing and approving projects, EPA increased regulatory role and support for indigenous rangers and a moratorium on fracking

**Greens** – strong environmental policies and support for indigenous rangers, ban on fracking, protection of aquifers

**One Territory** – ban on fracking, improved environmental regulatory processes, water and food security, transparency

**Independents** – **Phil Walcott** – support for solar and against fracking **Robyn Lambley** – against fracking

**CLP** – pro-fracking, limited support for solar, pump it up attitude to water, development at the cost of other values, increasing landclearing and reduced development controls

ALEC urges you to consider the environment when voting this election. There are stark differences between the candidates across the centre. Choose wisely and think about the next 20 years, not just the next 4 years.

Also, even though you don't have to please make sure you preference all candidates. By preferencing, essentially the party you want to put last has the least chance of getting your vote.

The ALEC How to Vote for the Environment Card was put together based on these online resources:

One Territory  
<http://1territory.party/wp-content/>

- <http://www.territorylabor.com.au/Labors-Plan/Healthy-Environment>
- The NT Greens  
<http://greens.org.au/nt>  
<http://greens.org.au/platform>
- Country Liberal Party  
<https://countryliberals.org.au/content.php?id=2412>  
<http://chiefminister.nt.gov.au/our-plan/balanced-environment>
- Independents  
Phil Walcott  
<https://www.facebook.com/phil4braitling/>

Issue	CLP	ALP	Greens	One Territory
Climate Change	No policy	Awaiting policy	Active	No mention
Fracking	\$6M to support onshore gas	Moratorium	Ban	Ban
Water policy	Over-allocations Not science based	Comprehensive Science based Review of allocations	Comprehensive	Water security policy-lacking details
Environmental Regulations	Mining Minister approves and regulates mines Balanced Environment Strategy	Environment Minister Independent EPA Environment Protection Act	Environment Minister Independent EPA National EPA	Environment Minister Independent EPA
Renewable Energy	Actively against solar in Alice Springs	50% RET 2030	90% RET 2030	Support – no targets, remote areas
Indigenous Rangers	No mention	Support	Support	No mention
Transparency and accountability	No mention	Independent Commission Against Corruption	Independent Commission Against Corruption	Independent Crime and Misconduct Commission

### Where do they stand on Fracking?

	COUNTRY LIBERALS	Labor	ONE TERRITORY	THE GREENS
1) Will you halt the risky shale gas fracking industry in the Territory?	✗	✓ PAUSE	✓ BAN	✓ BAN
2) Will you put 'no go zones' over drinking water catchments and groundwater recharge areas?	✗	✓	✓	✓
3) Will you support the right of landholders and Traditional Owners to say no to shale gas extraction on their properties and lands?	✗	✓	✓	✓

Ask your Independent candidates for their position on shale gas fracking and water protection too.  
Make your vote powerful on voting day: Number all the boxes.

Authorised by N Hogan, 2/23 Daly St, Darwin, NT 0800



## Arid Edge turns Three!

Break open the champagne, because this winter marks three years since ALEC took the plunge in setting up it's own social enterprise arm, Arid Edge Environmental Services. And after 3 years of on the ground environmental work and a whole bunch of great projects and contracts, Arid Edge has for the first time turned a profit and is able to put money back into ALEC – all the more reason to celebrate! But we're not stopping to pat ourselves on the back - Arid Edge is as busy as ever with some great projects moving ahead on a number of fronts.

Our work on food gardens in the Utopia Homelands over the past few years has taken another step forward, with nutritionist Sarah Earl and Nutrition Mentor Ingrid Phyland joining the team a week a month to support the existing gardens work, ably overseen by the ever reliable Hilton Chilvers. Winter crops are in, cookups are happening, and Ingrid and Sarah will bring a range of new healthy eating activities and start



AEES and the Green Army team experiencing track maintenance.

measuring the impact of the project on people's access to fresh food and diet as well. With great support from My Pathway and Primary Health Network NT, we're looking forward to great results in the near future in Utopia.

Work on the landscaping for the new Larapinta Child Care Centre with MPH Construction has kicked off, with the first section complete and looking great! The beautiful outdoor play area designs by LA3 Landscape Architects in Cairns are coming to life on the ground as we near the halfway completion point. We can't wait to have a play in the mud play area(!) and artificial creek when the whole thing is complete!

The Green Army team have been working hard and are now passed the halfway point in their project managing buffel and couch grass in the Todd River. Significant areas on either side of Tunks Rd crossing and in front of the Casino have been treated, with over 200 river red gums protected from fires by clearing invasive grasses at their base. River bank plantings outside Olive Pink Botanical Gardens are due to happen any day now, and the team has squeezed in the odd day trip to Desert Park and to join Snapper John's track maintenance team on the Larapinta trail. Watch this space for news on more projects.

Alex McClean



AEES manager Alex McClean and worker Daniel Annesley working on larapinta child care centre section 1.



## RePower Alice Springs

Media Release Wednesday 20 July 2016

### Local citizens take action for the solar future of Alice Springs

Alice Springs citizens have taken action for a solar future for the town today. As Chief Minister Giles and Minister Chandler turned the sand on the \$75 million gas upgrade at Owen Springs Power Station, supporters of RePower Alice Springs held up placards calling for investment in solar jobs, advocating for 100% solar and declaring 'I love solar and I vote'.

RePower Alice Springs is a community led campaign to support a solar powered future for Alice Springs. The Arid Lands Environment Centre supports the RePower Alice Springs campaign through providing meeting space and administrative support.

"ALEC has a vision for 'healthy futures for arid lands and people' and has been advocating for government support of renewable energy for more than 35 years. ALEC was an active consortium member of Alice Solar City initiative and hosted the desertSMART COOLmob program that supported households to become more sustainable through water and energy savings, and produced the Roadmap to a desertSMART Town," said ALEC Director Jimmy Cocking.

'Being a consortium member of Alice Solar City, it is insulting that the government would

spend \$75M on 10 gas fired engines without considering solar power at all. There is strong solar expertise and support for solar here in Alice Springs, and when making decisions about the town's energy future local stakeholders must be consulted."

'Investing and supporting renewable energy generation and storage in Alice Springs makes sense. There is a strong appetite for solar in this town and we are one of the sunniest places in Australia. ALEC's vision is for Alice Springs to be a solar leader in Australia. With support we could make Alice Springs a world class solar centre with leading research, education and innovation.'

"Investment in fossil fuels and gas infrastructure is going against the global tide of transitioning to renewable energy. The Giles Government is taking the NT backwards. The CLP position is clear, onshore gas at the expense of everything else. This election we're calling on all Territorians to vote for a renewable energy future."



Chief Minister Adam Giles addresses member of RePower Alice Springs at the opening of the Owen Springs Gas Plant Upgrade.

## Northern Territory's \$2 billion scare campaign against solar

Giles Parkinson

(<http://reneweconomy.com.au/2016/northern-territorys-2-billion-scare-campaign-solar-75959>)

The Northern Territory's conservative government and its state-owned power generator appear to have a thing against solar. So much so, they have gone to extraordinary lengths to demonise the technology, claiming it will cost up to \$2 billion to power the city of Alice Springs with nothing but solar power.

No one is actually suggesting that Alice Springs should be powered 100 per cent by solar power just yet, although many are suggesting that added solar should not be ruled out. But the government is clearly feeling defensive about its recent decision to invest \$75 million on a new gas generator, without any consideration for solar alternatives.

And its response to that criticism is revealing some heavily in-built prejudices and misunderstandings about solar power. And this in a city which likely already has the highest penetration of solar power in the country, has better sunshine than any capital city, and is described as the "solar heart of the country."

We first wrote about the territory government's antipathy to solar in April, in this story, Alice Springs: Solar city at centre of a fossil fuel controversy, when it was revealed that the government had responded to a major black-out by announcing a \$75 million in new gas-fired generation, with apparently no consideration for any more renewables.

State treasurer Dave Tollner sought to justify the decision with a series of myths, falsehoods and complete misunderstandings about renewable energy, including the claim that when the sun shines, "or the wind starts to blow, and suddenly the cables are overloaded, they heat up, melt,

collide and fail."

Chief minister Adam Giles doubled up on those comments a few weeks ago, claiming that any efforts to go "100 per cent" solar would cost \$1.4 billion, and suggesting that there was already too much solar in the system.

"There is a general rule that says, once you get to 20 per cent you start to have load issues, which is why you see blackouts in Alice Springs," Giles said.

That's not true, on several fronts. The big blackout in February was caused by a problem at the gas generator. And as a trial project involving Territory Generation and sponsored by the Australian Renewables Energy Agency pointed out in 2014, the city could easily obtain 60 per cent of its electricity supply from solar into the grid.

A report on that project said the increased variation in supply would be no different from the "noise" of varying levels of demand. It said such claims about variable supply sources were based on the assumption that all demand is constant. It almost never is. And grids like South Australia already get close to 50 per cent supply from wind and solar without issues, while smaller mini-grids go to 70 per cent or more.

But the government's extraordinary estimates for the cost of going "100 per cent" solar are easily the most egregious. We had asked Giles' office, soon after his comments, where he got the \$1.4 billion estimate from. We were told then that the government-owned Territory Generation was "putting together" some modelling and we would have to wait a week.

We actually had to wait a little longer than that, but part of it was finally released last week, by the general manager of Territory Generation,

Tom Duignan. And in this part of the report, the cost of going 100 per cent solar had suddenly jumped, to between \$1.5 billion and \$2 billion, an investment that would lift electricity prices by 350 per cent.

Even if someone was to suggest that Alice did go 100 per cent solar, which no one is, the numbers seem extraordinary. According to Duignan, enough solar and enough storage would need to be built to provide electricity for seven days with no sun. He pointed to a cloudy period from May 2 to May 8 when solar output had fallen 46 per cent. This, said several experts in solar and storage, was perfectly ridiculous, a clear sign of the "old way of thinking" against the new; the sort of mentality that thinks only in terms of "base load" power, and which has underpinned the gold-plating in Australia's grid in recent years.

It is even more bizarre because Territory Generation calculated these scenarios (see above) on the basis that there would be 36MW of back-up dual-fuel power at the Owens plant in the system anyway. Why? Because it is needed just in case the gas generator fails, like it did in January.

So, any expert in solar and storage would ask, why on Earth would you be seeking to invest in seven days of storage when there are back-up generators? It makes absolutely no sense. We asked Territory Generation for a response on several occasions in the last few days. We have not received one.

One of the big differences between fossil fuels and renewables is that wind and solar cost more to build, but then run on a fuel cost of zero. The opposite is true of gas.

What, we asked Territory Generation, was for the cost of gas-fired power over the 25-years life of a solar farm? Would Territory Generation provide its estimates of the running costs of the gas plant – including the fuel cost – over the next

25 years? What is the cost of generating a single megawatt-hour at the gas plant?

Commercial in confidence, we were told. So we did a back-of-the-envelope calculation. The town's average demand is said to be 25MW. Let's say it costs \$100/MWh, which is pretty generous, that would equate to around \$22 million a year in fuel costs, or a minimum \$550 million in fuel costs alone over the next 25 years.

That actually puts it in the ball-park of the concentrated solar power option that they considered, of about \$600 million. A solar tower with molten storage meeting the town's average 25MW power demand, and peaks of around 50MW, would probably be cheaper than that.

It would not, for instance, need 48-hour storage – not in a town that has 300 sunny days a year, as the township boasts, and certainly not with the 36MW of back-up plant.

As for the solar PV estimates. They seem perfectly ridiculous. 100MW of solar PV – which is what Territory Generation estimates would be needed – should cost no more than \$300 million, even allowing for the remote area. If the plant was distributed into smaller areas, the cloud cover would be an issue.

Yes, battery storage would be needed, to help smooth out the output as clouds pass, and to provide "ancillary" services such as frequency. But it would be nowhere near the amount indicated by Territory Generation, and costs are expected to fall by half in coming years – about the time that any new capacity would be needed.

That is the point the Repowering Alice Springs community group has been arguing – for the people who run the grid to have some consideration for the future and include solar in the calculations, and not to rule it out on some ridiculous cost estimates of "solar only" using outdated ideas and practices.

## FRACK FREE COORDINATOR UPDATE

With the NT Election at the end of August there is no better time to get involved in the campaign! We need to keep the pressure on our Government and election candidates to protect this land and our water from the risks of fracking – and we need everyone to do it!!

The election offers the best opportunity we have to stop fracking – check out our candidate ‘scorecard’ to see how different parties and candidates rate on fracking & make your vote count!!

The last couple of months have seen significant activity in the campaign – with National actions in the lead-up to the Federal Election in July as well as the completion of our community surveying in old East-side! Read more in the CAFFA update below!

### New Regulations Leave Big Gaps

On July 6th New Petroleum (Environment) regulations came into effect in the Territory. While the NT Government claims the new regulations will ensure gas development is ‘ecologically sustainable’ the regulations do not go far enough to protect water & our communities for a number of reasons.

The regulations use an approach where the risks must be reduced to be ‘acceptable’ or ‘as low as reasonably practicable’. However at no point do they define what is meant by ‘acceptable’ or ‘as low as reasonably practical’. Surely any risk to our water supply is not acceptable!

The ‘as low as reasonably practicable’ approach used in the regulations also does not specify any minimum requirements that must be met by operators.

The regulations are also highly questionable as they give all the power to the Mines Minister to

decide on the acceptable risk from fracking.

Furthermore the regulations do not take on advice from energy law expert Dr Tina Hunter that the regulations should include independent inspections of well integrity. Without independent inspections of well integrity there is no assurance that wells won’t fail and cause water contamination!

While the Frack Free NT Alliance will continue to push for a stronger regulatory framework around fracking, the research has already shown that the risks around fracking can only ever be reduced by regulation - it can never be completely safe. We need to stop this invasive industry in its tracks!!

As a community we need to come together to make a stand – please do what you can to get the message out in the lead up to the election. Even if you’re not actively involved in the campaign you can help – just by talking to people about fracking! Friends, family, neighbours or work colleagues – if you can talk to just 2-3 people about fracking and how they can help protect the NT with the way they vote it can make a big difference!

The current Government will only continue to promote this industry at all cost to our community and environment. We have the opportunity for real change on this issue at the August election – let’s use it!!

### Gas Pipeline is a Pipe Dream

The development of the Northern Gas Pipeline from Tennant to Mt Isa pipeline continues to come into question with a report released in May showing there is no market demand for expensive fracked shale gas from the Territory. This comes after the pipeline was downscaled

from 14 inches to 12 in April due to lack of customers.

The report, titled Pipe Dream — a financial analysis of the Northern Gas Pipeline, said the pipeline was economically unviable and “a bad decision being promoted to cover up another bad decision”.

The report’s author, Bruce Robertson from the Institute for Energy Economics and Financial Analysis (IEEFA), said the NEGI pipeline was based on a set of “fundamental misunderstandings”.

It listed a number of concerns, including reduced demand, questions of ownership, unrealistic forecasts, a global glut of liquefied natural gas (LNG), financial viability and the high cost of production in the Northern Territory.

It also said the project was “conceived to compensate for a poor decision by the Power and Water Corporation (PWC) to contract to buy too much gas”, the only customer for the pipeline so far.

Developing the NT’s onshore shale gas industry now would be a mistake, he said, as it would be



expensive to produce and the east coast gas market was already operating at a loss.

The report also said the Chinese and Singaporean governments, which own Jemena, had been gifted by the NT the right to run an unregulated natural monopoly, and would reap most of the profits if the unconventional gas industry takes hold in the NT.

Meanwhile Jemena continues to push forward with developing the pipeline and getting the necessary approvals to proceed. Jemena will apparently make its final financial decision about the pipeline in December.

As more and more information comes to light casting doubt on the feasibility of the pipeline let’s hope they see it for what it is – a poorly thought through pipe dream.

The NT Frack Free Alliance continues to work with Traditional Owner’s along the pipeline route who have concerns about the pipeline enabling the development of fracked gasfields across the NT. These voices need to be heard in the planning process.

The Environmental Impact Statement for the Northern Gas Pipeline is due to be released for public comment in September. It will provide an opportunity to raise our concerns about not only the environmental impacts but also the impacts on those communities who are connected to that Country.

Please consider putting in a submission around the development of the pipeline - check the CAFFA facebook page for more information.

### Council’s Call for Water Protections Too Weak

On Monday 27 June Council considered a recommendation from its Environmental Advisory Committee that - Council call on the NT Government to establish a ‘no-go’ zone for shale

gas fracturing activities through the drinking water aquifer for Alice Springs.

The recommendation was based on a request put to the EAC from CAFFA in early June. Disappointingly though the Elected Representatives chose to disregard the recommendation from the EAC and instead support an alternative proposed by Mayor Damien Ryan: that council ask the NT Government to protect the Alice Springs water supply now and into the future.

While the motion seems to be a step forward in protecting our water, it is too general and vague to provoke any actual response from the NT Government, least of all the establishment of a fracking 'no go' zone over our drinking water aquifer.

The motion from the EAC was voted against by Mayor Ryan, Deputy Mayor de Brenni, and Crs Brown, Douglas, Heenan and Price.

While other Council's in the NT are taking a proactive approach to protecting their communities from the risks of fracking it is disappointing that Alice Springs Town Council continues to dodge the issue and make's only token efforts to be seen to address community concern.

CAFFA will continue to keep the issue on the Council agenda until real steps are taken to protect our water from the risk of fracking.

You can help by voicing your concerns to Council – Write to Mayor Damien Ryan to let him know you are still concerned about the risk to our water and communities from fracking. Ask to be kept updated about how the NT Government will work with Council to ensure our water is protected into the future. Email: [mayor@astc.nt.gov.au](mailto:mayor@astc.nt.gov.au) This will ensure our elected representatives know the issue hasn't been swept under the rug!

**Tanya Hall**



### **89% Oppose Shale Gas Fracking in Old Eastside!!**

At the end of May CAFFA launched the results of our community survey of Old Eastside at a community party at Gosse St Park.

The survey was three months in the making and involved volunteers door-knocking over 500 households in the suburb of Old-Eastside to survey residents about their views on the use of hydraulic fracturing for shale gas or 'fracking' in Central Australia.



603 people participated in the community survey with a significant majority of 89% (538 people) indicating they want to see Central Australia shale gasfield free!!

Only 2.8% (or 17 people) supported the development of shale gasfields in Central Australia. The remainder of the survey participants were unsure.

Old Eastside is in Chief Minister Adam Giles' own electorate – what a shame he hasn't listened to his constituents views on fracking, and continues to believe people opposing fracking are a small minority.

Get involved!! We have now extended the community survey to ANY and ALL streets across Alice Springs so that anyone anywhere can take part! If you are interested to survey your street we can help you do it!

We have a team of local people who are happy to help you to prepare and to survey your street. We can provide all the resources & information – you just need a few hours a week for a few weeks & the enthusiasm!

### **Federal Election Campaign – Our Community Takes a Stand!**

In the lead up to the Federal Election in July CAFFA held two hugely successful community actions as part of the national Lock the Gate 'Water 4 Life' Campaign.

The campaign called for action from Federal politicians & candidates to protect our significant water resources, food producing areas, and the health and wellbeing of our communities.

In mid May we called on Warren Snowden and Nigel Scullion to commit to specific action to protect our water should they be re-elected.

We had a massive turnout of 80 people meet outside Warren's office and then march to Nigel Scullion's to make our voices heard.

At the end of June we held the biggest highway action Alice Springs has ever seen! From Basso road in North side to Araluen across to East-side and out to Illparpa we had 50 people gathered in 10 different locations across town to get the message across that we won't stand for fracking risking our water!

### **Campaign Events Coming Up**

CAFFA will be holding TWO roadside demonstrations in the lead up to the election at the end of August. Can you join us on Saturday 6 August AND Saturday 20 August from 10am – 12pm!

Once again the idea is to have as many small groups in different locations as possible so that our message can't be missed!

So make some signs, gather your friends, pack a roadside picnic & head out to find a spot. You can join with people already set up or set up your own spot! Or you can join in at the intersection of Larapinta Dr & Stuart Highway.

**Get in touch to find out more!!**  
**Email [frackfreecoordinator@gmail.com](mailto:frackfreecoordinator@gmail.com)**



## Alice Springs Community Garden



Regular working bees are on the 1st and 3rd Sundays of every month.

[www.alicecommunitygarden.org.au](http://www.alicecommunitygarden.org.au)

On Saturday afternoon on August 13 the ABC's Costa will be visiting the Garden from 1.30-3.30 as part of ALEC's Eco Fair. He'll be doing his community gardening thing including a walk around with Committee members and local garden guru Geoff Miers. Tickets are \$20. Tea, coffee and cake for be for sale from Garden members. We would love a big turn out.

Wonderful to see that our display bed at the Garden entrance is flourishing in spite of hail and frost. Many other plots are producing well.

On the last Friday of each month from 5-ish to 7-ish we have a social get together open to all. The next one will be on the 29th July. Bring a plate to share, something to drink and a story or two to tell! Fire up the pizza oven!

Leasing a plot: There may be a couple of our 35 private plots available right now to new gardeners. If you are interested please contact our Plot organiser, Philippe on 0427 383 721 or [plots@alicecommunitygarden.org.au](mailto:plots@alicecommunitygarden.org.au).

We'll be happy to show anyone around and explain how the Garden supports healthy growing. Meditation every Sunday morning at the Bodhi tree in the Garden from 8am to 9. Fire drum and a beautiful quiet.

WORKING BEES on the first and third Sundays of the month at 9am for anyone interested. Always things to do and learn. Join in. Next one will be on Sunday August 7th.

We are hoping to start work on the new solar 'iron wood' pergola in the very near future. It will provide an exciting new gathering and entertaining area and generate power and additional funds for developing the Garden.

We have started removing the buffel grass from the hill behind the Garden and recently celebrated our Garden's close relationship with

buffel with an ephemeral buffel man and buffel hut in the Garden through the art installation skills of visiting artist, Trevor Flinn. Hopefully some of you were lucky enough to spot them. A couple of videos have been made and photos taken, so maybe more later!

Bare rooted Japanese mulberry trees from the Garden available for \$50-\$80 to anyone with space and hole at home.

A reminder to all ALEC members that you can be members of the Garden and visit whenever you wish. ALEC will provide you with the code to the combination lock on the front gate.

Contact the Garden Convenor Bruce Simmons on 045 145 7335 if you are a newcomer and would like to make a time to be shown around the Garden.

### Buffel Grass Bashing – A Rewarding Addiction!

Andy Vinter's Bush Regeneration Handbook provides terrific practical information for anyone interested in arresting the progress of weeds, and Buffel Grass (*Cenchrus ciliaris*) in particular, on their block, streetscape or local feature. So you might go there as a starting point if you are interested in 'bashing the Buffel'.

My history with weeds goes back to early childhood times helping my father remove couch, three corner jacks and onion weed from our big three quarter acre block in suburban Adelaide. In spite of frequent ouches and an occasional protest, I think the rewarding experience of companionable times and visible wins became an entrenched part of my DNA.

When it comes to gardening and gardens I have never viewed invading weeds as all bad, though I think couch is the real villain in many ways and should be addressed with a big mental

alert KEEP OUT sign! But most other weeds, including Buffel Grass, can be recycled as greens for the chooks, valuable compost or mulching materials... some are pretty nutritious for humans too I hear, though I haven't explored that option seriously as yet.

Skilled weed spotting and assessment is a virtue and potentially a stick for one's own back. My grandma always used to helpfully remind me "one year's seeding, seven year's weeding" and the message reverberates and drives me on in so many ways most days of the year. So I might decide to leave a weed to grow for a while for its potential recycling value but once its seeds start to mature I have an urgent or even an EMERGENCY bell ringing in my head. I'm confident those bells ring for many keen gardeners.

The bullying potential of Buffel Grass is



unfortunately extreme. Over time, Buffel Grass muscles everything else out of its way even without the additional support of fire. The good news is that the native vegetation is not obliterated so much as hidden in seed form.

With good conditions, and a Buffel-free zone, many interesting natives return in abundance to reward the worker. And from my experience they'll stay on – so long as the Buffel is kept at bay!

I have always either pulled or matted out the Buffel Grass, depending on its size. Sometimes a spade or hoe works well on smaller plants in dry soil. I've not adopted poisoning but I know some very keen Buffel Grass bashers who do an effective regular hunt for ferals in their patch with RoundUp spray packs on their backs.

When tackling a new field of established Buffel Grass I have a sturdy old Toyota HJ45 tray top to which I add galvanized iron 'hungry sides' so that I can pile, stomp and add more and more Buffel Grass until I have a 'decent load' ready for mulching or composting. It takes me in effect a full day of steady labour, generally spread over a few vigorous Buffeling sessions to get a load. Sometimes I've been lucky enough to have my sister Jenny help or I find a fellow traveller who shares some time with me clearing a patch and filling the tray. Hopefully they feel as good as I do about the experience. I'm confident it will stay memorable!

What to do with your Buffel Grass once removed? I have taken a few tons to the Alice Springs Community Garden as a major component of our new plots. Combined with cow manure, watered and covered with a layer of compost it composts down, virtually without any regrowth, while veggies grow above.

I have also used it to mulch our fruit trees, piling it up 50 cm or more. Neighbours have simply heaped it up with very little subsequent regrowth.

I'm not inclined to simply leave it where it's been dug up as logically I'd expect a lot more new seedlings from leaving the seed heads on the soil.

To keep Buffel Grass from coming back there's no alternative to eternal vigilance. I do a monthly feral hunt around our block and along Schaber Road verges where residents and I have cleared all the Buffel Grass. After the recent heavy rains we've had a heap of new seedlings come up. But if you can see it as a bit of friendly competition and rewarding exercise then there's no problem with keeping on the job.

Every year it gets a bit easier, especially if you extend your Buffeling to include a few extra metres beyond your natural boundary. The only question for me then is whether or not to surrender to my keen desire to strike further into enemy country! Giving in and going further is generally met with appreciation from grateful neighbours, some of whom have been encouraged and strengthened to become more passionate Buffel-hounds themselves.

I'd be curious to learn if the new environment attracts more wildlife. Certainly, we have many birds and lizards on our property and a diversity of flora on our verges that we couldn't have imagined on our arrival to Schaber Road twenty plus years ago.

Many happy outcomes from a rewarding addiction.

By Bruce Simmons



## Why do we love buying local fresh fruit and Veg?

This has been a question that I have been thinking about as we get into Lemon season again. Citrus grows well here in the arid zone, and as we have found in past years Food for Alice gets a good amount of oranges, mandarins, lemonades, grapefruit and a mountain of lemons. You will find people bringing lemons into work places to give away, boxes of lemons at front gates with a message saying please take.

So with so many lemons being given away, why do people still come to Food for Alice and buy them?

One of the things that I love about working for ALEC is I get to see again and again just how much the community in general loves to and wants to support local enterprise and the local community as a collective. How much people are willing to give to support a good future for everyone. For Food for Alice it is how much value people place on local production in general. This constantly reminds me that price is one of the lowest factors when purchasing goods and services for a lot of people. There values and what is important to them comes before price. Hence people are still wanting to and willing to pay for lemons even though they could probably get them for free if they go looking.

So in the spirit of bringing more lemons to the table, here are two of my recipes for lemon butter and preserving lemons.

### Preserving lemons

- Lots of lemons
- Lots of salt (I find rock salt works best)
- Sterile jars

Sterilise the jars by washing in hot water soapy water, rinse in hot clean water and then pop in oven on a low temp for about 20 min. Cut a lot of lemons into 8 to 10 slices Place layer of salt in bottom of the jar, then a layer of lemon slices, then a layer of salt, then lemons, repeat until jar is full. Fill jar with the freshly squeezed lemon juice. Put in a dark cupboard for 6 to 8 weeks, turning over every week or so.

### Lemon butter

- Sterile jars
- Rind and juice of 2 goods sized lemons (add more rind if you want a to boost the lemon flavour)
- 2 whole eggs, 2 egg yolks
- ¾ cup (165g) caster sugar
- 1/3 (80g) chilled unsalted butter
- Whisk whole eggs, yolks and sugar in a saucepan until smooth
- Place pan over a low heat. Add the butter, juice and zest and whisk continuously until thickened
- Pour into sterile jar
- Enjoy (try not to eat it all at once)

Carmel Vandermolten



Join the Food for Alice Facebook Group:  
<https://www.facebook.com/groups/108715702520033/>





COMMUNITY RESILIENCE, LOCAL FOOD PRODUCTION & LOTS OF YUM.



 **WHAT WE DO:**

- We reduce food waste by buying backyard gardeners excess produce
- We reduce food miles by offering people local produce
- We create an alternative to the supermarket duopoly
- We create a culture and a community around local food

 **WHAT WE SELL:**

- We sell seasonal, local fruit & vegetables
- We also sell local honey, and eggs and can sell jam, pesto, and sauce if made in a registered kitchen.



**MARKET STALL**  
**EVERY SATURDAY MORNING!**  
**9-11AM @ ALEC**

 Join the Facebook group to see what produce we have!

Arid Lands Environment Centre,  
 90 Gap Rd, Alice Springs  
 contact Carmel: 0409 180 614



**BRINGING LOCAL FARMS & BACKYARD GROWERS OF ALICE SPRINGS TO THE TABLE.**

# BEYOND NUCLEAR INITIATIVE

## SA's Radioactive Royal Commission

There are currently two proposals in Australia for construction of radioactive waste facilities, one for national and one for international waste, operating under separate but parallel processes. The national facility is proposed for management of domestically produced low and intermediate level waste. The most dangerous of this waste arises from reprocessing of spent nuclear fuel rods that were used in the Lucas Heights nuclear reactor near Sydney. For twenty years there has been a search for a site - the shortlisted areas have always been remote and have always been contested.

A site proposed in SA in 1998 was challenged and finally defeated in 2004 by the 'Irati Wanti' campaign, a phrase meaning 'The poison, leave it'. The NT was then targeted- three Department of Defense sites and one that was nominated by the Northern Land Council against the express wishes of Traditional Owners. This was a place called Manuwanguku, or Muckaty, and it was also defeated in June 2014 after an eight-year campaign.

The only area currently under assessment is on Wallerberdina Station on Adnyamathanha Land in the Flinders Ranges of South Australia. It is located next to an Indigenous Protected

Area, one of only 72 around the country, and has important freshwater springs and many thousands of artefacts on the site. Traditional Owners have spent years documenting the cultural storylines that run right through the nominated site and are deeply disturbed by the proposal.



Clearly we need to address management of existing waste. But this important issue cannot be resolved if the federal government continues trying to impose it on an unwilling remote community.

With small amounts of money being offered in exchange for hosting domestic nuclear waste, we cannot allow this to become the 20th century version of flour, sugar, tea and blankets.

## SA Nuclear Royal Commission

An even more ominous cloud is currently overhead South Australia: the plan for an international nuclear waste importation and storage industry, being actively advanced through a Royal Commission. In November the SA Premier will announce how he intends to respond to recommendations that this leap of

# No Dump Alliance

[www.nodumpalliance.org.au](http://www.nodumpalliance.org.au)



faith be made. This is not a proposal for a small or trial facility- it is a plan to host up to one third of the world's high-level radioactive waste. This is a forever decision that impacts the whole country now and many generations into the future.

### Why consider international waste?

One of the major driving factors behind the establishment of the Royal Commission was the crisis in the South Australian economy and the loss of jobs through the manufacturing downturn.

There is however, no established market for trade in international nuclear waste, meaning that costs and income predicted in the report are based on extremely optimistic assumptions. This includes the assumption that Australia, a country with very little nuclear experience, will be able to do something that no other country has ever managed, at a much lower cost than experienced countries estimate.

The modelling also doesn't include billions of dollars of extra costs like transport, shipping and insurance. Consultants who did the modelling acknowledge the project could cost double their estimates.

An emotive argument often used is that Australia has a 'moral obligation' to take back radioactive waste given that we have mined and exported uranium. However this does not consider the ethics of burdening many generations with the cost and risk of managing highly radioactive waste.

Uranium mining is only the first of many stages in the nuclear fuel chain that also involves enrichment, fuel production and ultimately use in nuclear power plants. Companies generating income throughout this process are very happy to take the profits from their activities, but always try to push the costs (financial, environmental and social) back on to the public.

If we accept the logic that we are ultimately responsible for the waste products associated with our exports, shouldn't we apply it to all our export products, like copper or steel? And shouldn't other countries be held similarly accountable for the waste produced from their exports?

From a social justice point of view, this proposal is an unacceptable double whammy for Traditional Owners, who have consistently opposed uranium being mined from their land and now also face prospects of the waste products being returned.

Another argument is that Australia should host waste because we are more politically and geologically stable than other places. High-level nuclear waste stays dangerous to humans for tens of thousands of years. To put that into context, the pyramids in Egypt were built around 4,500 years ago. Predicting levels of political stability over such a time period is ridiculous. And with the melting of ice sheets as a result of global warming likely to increase earthquakes and other seismic activity, geological stability is also becoming harder to predict. Can a facility be 'safe'?



Adnyamathanha Traditional Owners Enice Marsh and Regina McKenzie at Hookina Springs.

In all the years since the Hiroshima bomb, not one country in the world has worked out how to store high-level nuclear waste safely for the length of time it remains dangerous to humans. The US spent over \$10 billion and invested 20 years planning to store high-level nuclear waste at Yucca Mountain, Nevada, then abandoned the plan due to community opposition.

Finland is building a domestic final disposal waste facility, but this will only start receiving used fuel next decade. Before we know whether the technology will even work, the Royal Commission proposes that South Australia import 20 times their planned volume.

The only real-life experience with a deep underground nuclear waste facility anywhere in the world is the intermediate-level Waste Isolation Pilot Plant (WIPP) in the US state of New Mexico. In 2014 there was a fire closely followed by an unrelated rupture of one of the underground barrels, followed by failure of the filtration system. Workers were exposed to radiation and the WIPP will now be closed down for at least four years and the repair bill will be over \$500 million.

Three low and intermediate level repositories in the USA have been closed because of environmental problems. Farmers in the Champagne region of France have taken legal action in relation to a leaking radioactive waste dump. In Asse, Germany, all 126,000 barrels of waste already placed in a repository are being removed because of large-scale water infiltration over two decades.

### Transport and stockpiling

NT Chief Minister Giles met with Premier Weatherill in May to discuss Darwin Port being used to receive international waste shipments destined for storage in SA. This could see many decades of radioactive transports through the Territory, where truck accidents and train

derailments happen all too often.

The Royal Commission recommends we import high-level nuclear waste and place it in above ground storage for at least 17 years while a deep underground repository is built.

A grave concern is that the underground repository doesn't eventuate. Toxic waste will be stockpiled above ground in Australia and we can't give it back. What then?

### Moving forward on radioactive waste management

We need to urgently slow down production of these intractable materials globally. Processes nationally or internationally looking for locations for radioactive waste repositories must begin to prioritise social considerations to pinpoint suitable areas for facilities.

The Royal Commission final report acknowledged that there is opposition from Traditional Owners across SA to expansion of the nuclear industry. Government campaigns to 'recognise' Aboriginal and Torres Strait Islander people in the Constitution are hollow until they recognise the injustices already suffered at the hands of this industry and recognise the staunch resistance to future nuclear projects.

### How to support the campaign

In response to the Royal Commission a group of Traditional Owners, medical professionals, trade unions and other civil society groups formed the No Dump Alliance <[www.nodumpalliance.org.au](http://www.nodumpalliance.org.au)> and have invited individuals and organisations to sign on to a 'Statement of Concern'.

Yami Lester the Ambassador of the Alliance: "In 1953, I was just ten years old when the bombs went off at Emu and Maralinga, I didn't know anything about nuclear issues back then,



none of us knew what was happening. I got sick, and went blind from the Totem 1 fallout from those tests, and lots of our people got sick and died also.

Now I'm 74 years old and I know about nuclear issues. Members from the APY, Maralinga-Tjarutja and Arabunna, Kokatha lands say we don't want nuclear waste on our land. There are big concerns. And I worry because I know it is not safe for South Australia land and the people. Why does the Government keep bringing back

### Clean energy won't save us – only a new economic system can

Earlier this year media outlets around the world announced that February had broken global temperature records by a shocking amount. March broke all the records too. In June, our screens were covered with surreal images of flooding in Paris, the Seine bursting its banks and flowing into the streets. In London, floods sent water pouring into the tube system right in the heart of Covent Garden. Roads in south-east London became rivers two metres deep.

With such extreme events becoming more commonplace, few deny climate change any longer. Finally, a consensus is crystallising around one all-important fact: fossil fuels are killing us. We need to switch to clean energy, and fast. This growing awareness about the dangers of fossil fuels represents a crucial shift in our consciousness. But I can't help but fear we've missed the point. As important as clean energy might be, the science is clear: it won't save us from climate change.

What would we do with 100% clean energy? Exactly what we're doing with fossil fuels. Let's imagine, just for argument's sake, that we are able to get off fossil fuels and switch to 100% clean energy. There is no question this would be a vital step in the right direction, but even this best-case scenario wouldn't be enough to avert climate catastrophe.

nuclear issues when we know the problems last forever?"

It means a lot to me to be in this Alliance. I would like others to listen and join, become a member and fight together."

To keep in touch with nuclear free campaigns, join the facebook page 'Beyond Nuclear Initiative', follow on twitter @BeyondNuclearOz or subscribe for updates to the blog at <http://beyondnuclearinitiative.com>.

Why? Because the burning of fossil fuels only accounts for about 70% of all anthropogenic greenhouse gas emissions. The remaining 30% comes from a number of causes. Deforestation is a big one. So is industrial agriculture, which degrades the soils to the point where they leach CO2. Then there's industrial livestock farming which produces 90m tonnes of methane per year and most of the world's anthropogenic nitrous oxide. Both of these gases are vastly more potent than CO2 when it comes to global warming. Livestock farming alone contributes more to global warming than all the cars, trains, planes and ships in the world. Industrial production of cement, steel, and plastic forms another major source of greenhouse gases, and then there are our landfills, which pump out huge amounts of methane – 16% of the world's total.

When it comes to climate change, the problem is not just the type of energy we are using, it's what we're doing with it. What would we do with 100% clean energy? Exactly what we are doing with fossil fuels: raze more forests, build more meat farms, expand industrial agriculture, produce more cement.....

An excerpt from the Guardian article by Jason Hickel <https://www.theguardian.com/global-development-professionals-network/2016/jul/15/clean-energy-wont-save-us-economic-system-canwont-save-us-economic-system-can>



## CENTRAL AUSTRALIA'S PREMIER SCIENCE AND SUSTAINABILITY EVENT

**Friday 12th August - Sunday 14th August**

**Friday 12th August: Eco-Science Schools Day, 783 ABC Outside Broadcast, Alice Springs Bicycle Film Festival @ Olive Pink Botanic Garden**  
**Saturday 12th August: Understanding Our Waste Tours @ the Regional Waste Management Facility, Nourishing Gardens with Costa @ Alice Springs Community Garden, Science Under the Stars @ Earth Sanctuary World Nature Centre**  
**Sunday 14th August: EcoFair Sustainable Living Festival & Eco-markets @ Alice Springs Desert Park Courtyard**

**Organised by the Arid Lands Environment Centre as part of National Science Week**



[www.ecofair.org.au](http://www.ecofair.org.au)



## Feeding a hungry nation: Climate change, food and farming

Professor Lesley Hughes and Wil Steffen  
October 2015  
<http://www.climatecouncil.org.au/foodsecurityreport2015>

### Key Findings

The price, quality and seasonality of Australia's food is increasingly being affected by climate change with Australia's future food security under threat, our new report has revealed. Australia's food supply chain is highly exposed to disruption from increasing extreme weather events driven by climate change, with farmers already struggling to cope with more frequent and intense droughts and changing weather patterns.

#### 1. Climate change is making weather patterns more extreme and unpredictable, with serious consequences for Australia's agricultural production.

- Climate change is driving an increase in the intensity and frequency of hot days and heatwaves in Australia, changing rainfall patterns, increasing the severity of droughts, and driving up the likelihood of extreme fire danger weather.
- Average rainfall in southern Australia during the cool season is predicted to decline further, and the time spent in extreme drought conditions is projected to increase.
- Water scarcity, heat stress and increased climatic variability in our most productive agricultural regions, such as the Murray Darling Basin, are key risks for our food security, economy, and dependent industries and communities.
- Climatic challenges could result in imports of key agricultural commodities such as wheat increasingly outweighing exports.

#### 2. More frequent and intense heatwaves and extreme weather events are already affecting

#### food prices in Australia.

- Climate change is increasing the variability of crop yields.
- Food prices during the 2005- 2007 drought increased at twice the rate of the Consumer Price Index (CPI) with fresh fruit and vegetables the worst hit, increasing 43% and 33% respectively.
- Reductions of livestock numbers during droughts can directly affect meat prices for many years.
- Rainfall deficiencies in parts of Western Australia and central Queensland are projected to reduce total national crop production by 12% in 2014-15, and the value of beef and veal exports by 4%.
- Cyclone Larry destroyed 90% of the North Queensland banana crop in 2006, affecting supply for nine months and increasing prices by 500%.
- The 2009 heatwave in Victoria decimated fruit crops, with significant production losses of berry and other fruit crops.



#### 3. Climate change is affecting the quality and seasonal availability of many foods in Australia.

- Up to 70% of Australia's wine-growing regions with a Mediterranean climate (including iconic areas like the Barossa Valley and Margaret River) will be less suitable for grape growing by 2050. Higher temperatures will continue to cause earlier ripening and reduced grape quality, as well as encourage expansion to new areas, including some regions of Tasmania.
- Many foods produced by plants growing at elevated CO2 have reduced protein and mineral concentrations, reducing their nutritional value.
- Harsher climate conditions will increase use of more heat-tolerant breeds in beef production, some of which have lower meat quality and reproductive rates.
- Heat stress reduces milk yield by 10-25% and up to 40% in extreme heatwave conditions.
- The yields of many important crop species such as wheat, rice and maize are reduced at temperatures more than 30°C.

#### 4. Australia is extremely vulnerable to disruptions in food supply through extreme weather events.

- There is typically less than 30 days supply of non-perishable food and less than five days supply of perishable food in the supply chain at any one time. Households generally hold only about a 3-5 day supply of food. Such low reserves are vulnerable to natural disasters and disruption to transport from extreme weather.
- During the 2011 Queensland floods, several towns such as Rockhampton were cut off for up to two weeks, preventing food resupply. Brisbane came within a day of running out of bread.

#### 5. Australia's international competitiveness in many agricultural markets will be challenged by the warming climate and changing

#### weather patterns.

- Australia is projected to be one of the most adversely affected regions from future changes in climate in terms of reductions in agricultural production and exports.
- Climate impacts on agricultural production in other countries will affect our competitiveness, especially if warmer and wetter conditions elsewhere boost production of key products such as beef and lamb.

#### 6. If the current rate of climate change is maintained, adaptation to food production challenges will be increasingly difficult and expensive.

- By 2061, Australia's domestic demand for food could be 90% above 2000 levels, with a similar increase in export demand.
- Transitioning to a new, low-carbon economy is critical to avoiding the most dangerous impacts of climate change.

The longer action on climate change is delayed, the more likely it is that progressive, small-scale adaptive steps to cope with climate change will become increasingly inadequate and larger, more expensive changes will be required.



Professor Lesley Hughes is a feature speaker at desertSMART EcoFair.



# A SOLAR VISION FOR ALICE SPRINGS



**Public Meeting 6pm Monday 15th August**  
**Central Australia Development Office**  
**Todd Mall (opposite Flynn Uniting Church lawns)**

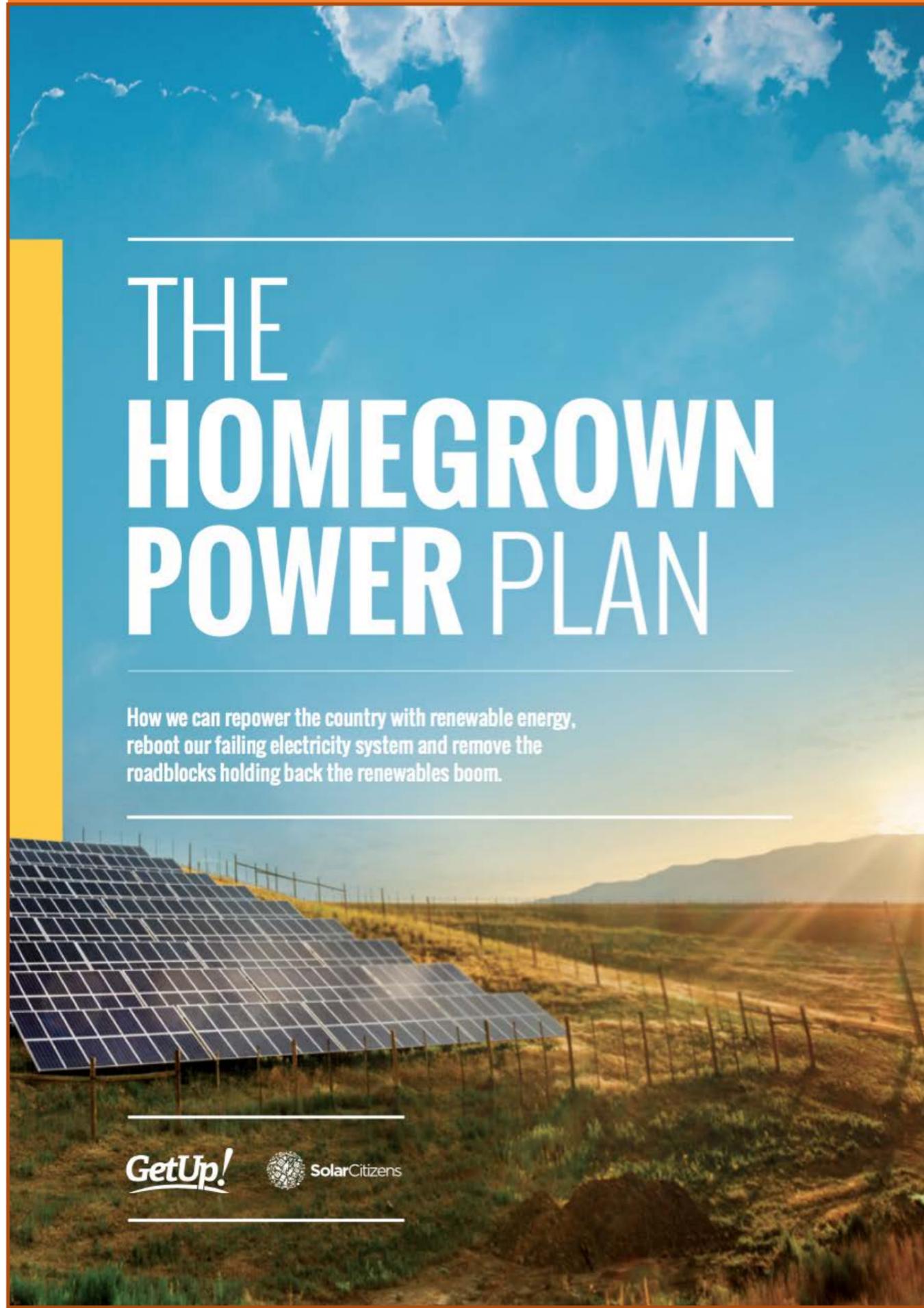
*With special guests:*

**Claire O'Rourke (National Director, Solar Citizens)**  
**Daniel Spencer (RePower Port Augusta)**  
**& local speakers.**

**Come along, be a part of this exciting community initiative and find out how together we can realise the solar powered potential of Alice Springs.**

**RePower**  
**Alice Springs**

*For more information:*  
[repoweralicesprings@gmail.com](mailto:repoweralicesprings@gmail.com)  
<https://www.facebook.com/repoweralicesprings/>



# THE HOMEGROWN POWER PLAN

How we can repower the country with renewable energy,  
reboot our failing electricity system and remove the  
roadblocks holding back the renewables boom.

**GetUp!**



Download The HomeGrown Power Plan at <http://www.solarcitizens.org.au/hpp>

The Homegrown Power Plan, a joint project between GetUp! and Solar Citizens, shows how we can rewire the country with renewable energy, reboot our failing electricity system and remove the roadblocks holding back the renewables boom. We must:



**Reboot the system, rewiring our laws to deliver affordable, 100% renewable electricity.**

- Stop old energy dinosaurs from squashing their cleaner competitors
- Reward people for contributing to the system instead of punishing them so they flee the grid
- Secure affordable electricity and a fair go for electricity consumers, whether they have solar or not.



**Repower the country, turbo-charging our existing renewable energy policies and adding some missing parts.**

- Restore the certainty needed for investors to build big renewable energy projects
- Unleash the innovation we need to reclaim our place in the renewables race
- Enable a people-powered energy revolution, where no-one is locked out of the renewables boom



**Remove the roadblocks, ensuring new renewables aren't held back by the legacy of a bygone era.**

- Level the playing field for renewable investment
- Plan the gradual and orderly closure of coal-fired power with a just transition for workers and communities
- Improve energy efficiency, making the transition easier and cheaper for all of us

When our politicians dismiss a 100% renewable future as impossible, what they really mean is it's uncomfortable. Uncomfortable to stand up to the companies who fund their election campaigns and fill the halls of Parliament. Uncomfortable to champion a better future when appealing to fear of the unknown is so much easier. The Homegrown Power Plan punches through their flimsy excuses and reveals what's really possible.

A move to 100% renewable power is practical, achievable, economically sound and overwhelmingly popular.

**Governments are being left behind by citizens voting with their feet (or their rooftops). It's time they caught up.** It's time to harness Australia's bountiful clean energy resources to rewire our country, create jobs, generate investment and ensure a safe, clean future for our children and grandchildren.

**A move to 100% renewable power is practical, achievable, economically sound and overwhelmingly popular.**



# The future of the Arid Lands Environment Centre is in your hands.....

**ALEC's operational funding has been cut in the Federal and Territory budgets, leaving it up to the community to ensure the work of ALEC continues into the future.**

ALEC has worked in Central Australia for 34 years standing up for the protection of the environment and developing programs to live sustainably in the arid lands.



## Can you help?

### **Become an ALEC 100 member:**

Donate \$100 a month each year, or contribute a one off \$1000 tax deductible donation. 100 supporters will provide the ongoing essential operating funds of ALEC.

### **Become a Desert Defender:**

Desert Defenders give monthly or one off tax deductible donations that provide critical funds to support ALEC programs and campaigns.



**Donate at [www.alec.org.au](http://www.alec.org.au)**





*Healthy futures for arid lands and people*  
**ARID LANDS ENVIRONMENT CENTRE**  
[www.alec.org.au](http://www.alec.org.au)