



# Submission to Senate inquiry into Budget Savings (Omnibus) Bill 2016

September 2016

## 1. Introduction

WWF-Australia welcomes the opportunity to make this submission to the Senate Economics Legislation Committee, Inquiry into Budget Savings (Omnibus) Bill 2016.

WWF-Australia's submission will only address the Australian Renewable Energy Agency's finances, Schedule 5 to this Bill, which seeks to cut ARENAs funds and incorporate the funds in the 2014–15 Budget.

WWF-Australia is part of the WWF International Network, the world's largest and most experienced independent conservation organisation. We have over 300,000 active supporters in Australia and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural resources and to build a future in which humans live in harmony with nature.

WWF has been an advocate for national and international action to avoid dangerous climate change and transition to a cleaner more sustainable economy for more than two decades.

WWF would welcome the opportunity to discuss the details of our submission.

## 2. Summary of Recommendations

**Recommendation 1:** The Senate Government members recommend to the Government that schedule 5 Australian Renewable Energy Agency's finances, is removed from the Omnibus Bill.

**Recommendation 2:** If schedule 5 remains, the Senate oppose schedule 5, Australian Renewable Energy Agency's finances.

**Recommendation 3:** The Senate Government members recommend to the Government it looks for budget saving measures by phasing out fossil fuel subsidies.

## 3. ARENA Critical for Australia's Energy Transition

The Australian Government has signed up to and intends to ratify the new global climate change agreement – the Paris Agreement, which aims to limit global warming to well below 2 degrees C, and pursue a limit of 1.5 degrees C.

Australia is particularly vulnerable to the impacts of global warming. Australia is already experiencing the devastating impacts of global warming. This year one of our greatest icons, the Great Barrier Reef, lost more than 20% of its coral from an underwater heat wave.

It's in Australia's interest that the world acts to limit global warming, Australia should be at the forefront of this action. To do its fair share of the global task, modelling finds Australia will need to reduce its greenhouse gas emissions to net zero before 2050<sup>1</sup> and transition our electricity to 100% renewable energy by 2035<sup>2</sup> and the rest of the energy system to 100% renewable energy by 2050<sup>3</sup>.

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<sup>1</sup> [http://www.climateinstitute.org.au/verve/resources/TCI\\_Beyond\\_the\\_Limits\\_FINAL23082016.pdf](http://www.climateinstitute.org.au/verve/resources/TCI_Beyond_the_Limits_FINAL23082016.pdf) and <http://www.climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/submissions/2015/WWF%20Australia.pdf>

<sup>2</sup> [http://cdn.getup.org.au/1499-Homegrown\\_Power\\_Plan\\_-Full\\_Report.pdf](http://cdn.getup.org.au/1499-Homegrown_Power_Plan_-Full_Report.pdf)

<sup>3</sup> [http://cdn.getup.org.au/1499-Homegrown\\_Power\\_Plan\\_-Full\\_Report.pdf](http://cdn.getup.org.au/1499-Homegrown_Power_Plan_-Full_Report.pdf)

Modeling by ClimateWorks<sup>4</sup> and others shows that Australia already has the solutions and is well placed to achieve the goals; we just need to accelerate the transition.

In 2015 globally, investment into renewable energy hit a new world record, with US\$286 billion invested, more than double dollar allocations to new coal and gas generation, and accounted for 90% of new electricity generated<sup>5</sup>, illustrating the rapid transformation of global energy systems that is underway.

Unfortunately over the past few years, the growth of renewable energy and the industry in Australia has suffered major setbacks due to policy instability, including repealing the carbon price in 2014, cutting \$434.9 million from the Australian renewable Energy Agency (ARENA) budget in 2014 and re-profiling \$370 million to later years (2019 – 2022)<sup>6</sup>, cutting the Renewable Energy Target (RET) scheme's 2020 target in 2015. As a result, investment in Australia has reduced from the highs of \$US1.7 billion in 2012 down to only \$459 million in 2016<sup>7</sup>.

Cutting ARENA's grant funds, would result in further loss of confidence and likely another collapse in investment in the renewable energy industry<sup>8</sup>. Australia is at risk of being left behind the global renewable energy revolution.

Further many of Australia's major trading partners in the region are seeing record levels of investment into renewable energy, with enormous capacity for continued growth. The major Asian markets have seen significant growth in renewables over the last few years. Solar stood out with its strong percentage growth in recent years, particularly in the major markets. This was highest in China, which saw a 70% increase in solar production in 2015 over 2014 to 39 terawatt hours (TWh). Similarly, Japan's figure grew 59% to 31 TWh and India's 51% to 6.6 TWh.<sup>9</sup>

The IEA's World Energy Investment Outlook (WEIO) projects that between 2014 and 2035 cumulative investment of USD 4.6 trillion will be required into renewable energy and energy efficiency to meet the energy demand of China, India, Japan, and South-East Asia.<sup>10</sup>

Australia's position as an important trading partner and supplier of knowledge and technology into this booming industry will be strengthened by maintaining funding to ARENA.

ARENA's grant funding is the primary mechanism to support early research, development and demonstration of renewable energy in Australia, unlike the Clean Energy Finance Corporation (CEFC) or the newly established Clean Energy Innovation Fund (CEIF), which only funds commercially viable projects.

WWF believes that while the CEFC and CEIF's commercial finance is an important addition to the mix of funding sources to advance clean energy, they are not a substitute for ARENA grant funding. The CEFC and CEIF pipeline relies on ARENA's concessional finance at the earlier research, development and demonstration stages, before CEFC and CEIF is willing to invest.

At the recent UNFCCC meeting in Paris 2015, Prime Minister Turnbull joined twenty other world leaders and announced Australia would participate in the *Mission Innovation*<sup>11</sup> initiative, which aims to accelerate global clean energy innovation. The Australian Government committed to double clean energy research and development

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4

[http://www.climateworksaustralia.com/sites/default/files/documents/publications/a\\_prosperous\\_net\\_zero\\_pollution\\_australia\\_starts\\_today\\_26nov15.pdf](http://www.climateworksaustralia.com/sites/default/files/documents/publications/a_prosperous_net_zero_pollution_australia_starts_today_26nov15.pdf) and

[http://www.climateworksaustralia.com/sites/default/files/documents/publications/climateworks\\_pdd2050\\_initialreport\\_20140923.pdf](http://www.climateworksaustralia.com/sites/default/files/documents/publications/climateworks_pdd2050_initialreport_20140923.pdf)

<sup>5</sup> WWF (2016) 15 Signals Evidence the Energy Transition is Underway.

[http://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf\\_energy\\_signals\\_english\\_pdf.pdf](http://d2ouvy59p0dg6k.cloudfront.net/downloads/wwf_energy_signals_english_pdf.pdf)

<sup>6</sup> <http://arena.gov.au/about-arena/corporate-publications/annual-report-2014-15/#highlights>

<sup>7</sup> <http://reneweconomy.com.au/2016/australia-large-scale-renewable-investment-plunges-again-to-near-record-low-74163>

<sup>8</sup> CEC (2016)

<sup>9</sup> <http://aigcc.net/wp-content/uploads/2016/09/AIGCC-Report-Final.pdf>

<sup>10</sup> <http://aigcc.net/wp-content/uploads/2016/09/AIGCC-Report-Final.pdf>

<sup>11</sup> <http://mission-innovation.net/>

investment (per annum) by 2020<sup>12</sup>. The statement by Australia suggests it will use the newly developed Clean Energy Innovation Fund (CEIF) which has been established to take projects from demonstration to commercialisation, but not support research and development. It is therefore unclear how Australia intends to meet its commitments to double research and development investment in clean technology innovation without ARENA.

ARENA has a pipeline of proposals seeking \$2.1 billion for projects valued at over \$7.7 billion<sup>13</sup>. In the absence of ARENA support, many of these potential projects, which are in advanced stage of readiness, would not be able to proceed, nor would the associated jobs.

ARENA plays a critically important role in building new technologies, reducing the cost of renewable energy, increasing renewable energy supply and diversity in Australia, improving grid stability and reliability, building industry skills, developing export capabilities and creating thousands of jobs.

For example:

- ARENA funding is helping drive down the cost of renewable energy in Australia.
  - Through its Large Scale Solar Funding round, large scale solar costs (mostly local) have reduced 40% since 2013<sup>14</sup>.
  - Early stage solar farms such as Moree and AGL required ARENA support of \$1.60 per watt. More recent funding rounds for large scale solar have seen average bids at \$0.28 support per watt.
  - At Broken Hill and Nyngan solar farms, innovative Australian mounting structures provided by Australian car-parts manufacturer IXL helped lower costs over imported structures, enabling local contractors to develop new faster installation techniques– and therefore lower cost – than previous builds.
  - ARENA is supporting solar cell research projects at UNSW, ANU, Monash University and CSIRO to help them make commercially-important progress which will further reduce costs<sup>15</sup>. For example the Australian-developed [PERC solar cell](#) has improved solar efficiency by 22%, reduce solar costs, has [annual sales of \\$10 billion](#) and will soon dominate the worldwide solar industry<sup>16</sup>
- ARENA is critical to the transition to 100% renewable energy through investing in projects that can improve grid reliability and stability.
  - ARENA recently partnered with AGL to install a ‘virtual battery plant’ in South Australia with a combined total of 7MWh capacity which will store rooftop power and help manage grid stability in the state.
- Supporting Australian Industries and Jobs:
  - The Moree Solar Farm has used 31,000, 3.6m long BladePiles, developed and manufactured by an Australian company based on the Gold Coast to support the tracking system and solar panels.
  - AGL’s Nyngan solar farm alone created 250+ regional jobs during construction.
  - ARENA’s current \$100 million large scale solar round is estimated to create 1000+ regional jobs while developing new and relevant skills.
  - One hundred and ninety members of Australia’s solar research community wrote an open letter arguing that hundreds of jobs would be lost in clean technology research, without ongoing ARENA funds.<sup>17</sup>
- ARENA is co-funding new technology pilots for low cost solar thermal with storage.

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<sup>12</sup> <http://mission-innovation.net/participating-countries/#Australia>

<sup>13</sup> [http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;adv=yes;orderBy=customrank;page=0;query=Content%3Arenewable%20Dataset%3AcomSen,estimate%20Dataset\\_Phrase%3A%22estimate%22;rec=8;resCount=Default](http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;adv=yes;orderBy=customrank;page=0;query=Content%3Arenewable%20Dataset%3AcomSen,estimate%20Dataset_Phrase%3A%22estimate%22;rec=8;resCount=Default)

<sup>14</sup> <http://arena.gov.au/media/project-proposals-show-shrinking-cost-big-solar/>

<sup>15</sup> <http://arena.gov.au/media/arena-supporting-bright-ideas-in-solar-rd/>

<sup>16</sup> <https://theconversation.com/dear-politicians-please-dont-endanger-world-leading-solar-research-by-cutting-arena-64611>

<sup>17</sup> <https://theconversation.com/dear-politicians-please-dont-endanger-world-leading-solar-research-by-cutting-arena-64611>

- ARENA has supported Vast Solar’s pilot solar thermal power station near Dubbo, NSW, which is dramatically lowering the cost of solar thermal using a modular design.
- ARENA has supported the development of concentrating solar PV technology by Victorian company, RayGen.
- Arena has invested in world’s first projects<sup>18</sup>.
  - ARENA supported the UNSW Power Cube power tower receiver, which achieved a world record for sunlight-to-electricity conversion efficiency using unfocussed sunlight.
  - ARENA supported the RayGen central receiver system, which is a world first pre-commercial pilot of Concentrated Solar Photovoltaic (CSPV) technology.
  - ARENA supported Carnegie Wave to be the world’s first array of wave power generators connected to a grid.
  - The Kidston pumped storage, supported by ARENA, is the first in the world to use two disused mine pits for hydroelectric generation.

A recent poll by ReachTEL of over 10,000 people showed the majority are against the proposed cuts to ARENA.<sup>19</sup>

**Recommendation 1:** The Senate Government members recommend to the Government that schedule 5 is removed from the Omnibus Bill.

**Recommendation 2:** If schedule 5 remains, the Senate oppose schedule 5.

## 4. Budget Savings – Phase out Fossil Fuel subsidies

As a budget-saving measure, the Government should instead phase out the more than \$7.7 billion in tax payer funded fossil fuel subsidies.

Any measure that increases the production and use of fossil fuels at a time where Governments are actively trying to cut carbon pollution and invest in clean alternatives is inefficient and wasteful.

According to the IMF fossil fuel subsidies have wide-ranging economic consequences<sup>20</sup>:

“... subsidies aggravate fiscal imbalances, crowd-out priority public spending, and depress private investment, including in the energy sector. Subsidies also distort resource allocation by encouraging excessive energy consumption, artificially promoting capital-intensive industries, reducing incentives for investment in renewable energy, and accelerating the depletion of natural resources”

Specific measures the Government and parliament can look at to make budget savings includes:

- Phase out non-agricultural fuel tax credits, boosting the budget by \$5.5 billion in 2016-17
- Phase out the concessional rate of excise levied on aviation gasoline and aviation turbine fuel (\$1.24b)
- End statutory effective life caps for the oil and gas sector (\$349m);
- End exploration and prospecting deductions for fossil fuel mining industry
- Reduce funds to Geoscience Australia for fossil fuel exploration

<sup>18</sup> <http://arena.gov.au/files/2016/09/ARENA-investment-profile-201608-2.pdf>

<sup>19</sup> <http://www.brisbanetimes.com.au/federal-politics/political-news/new-poll-puts-pressure-on-senate-labor-to-save-renewable-energy-agency-20160831-gr5f6f.html>

<sup>20</sup> <https://www.imf.org/external/np/pp/eng/2013/012813.pdf>

Polling<sup>21</sup> conducted by ReachTEL in April this year showed strong support for phasing out fossil fuel subsidies and using the funds to invest in renewable energy.

Ending fossil fuel subsidies and investing in ARENA is good for the budget and will assist the Government achieve its Paris commitments to do our fair share to pursue limiting global warming to 1.5 degrees C, and transition to a cleaner more sustainable future.

**Recommendation 3:** The Senate Government members recommend to the Government it looks for budget saving measures by phasing out fossil fuel subsidies.

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<sup>21</sup> <http://www.wwf.org.au/?16180/Fossil-fuel-subsidies-poll-shows-support-for-77b-to-be-redirected-to-health-and-renewable-energy>