

## 2. CARBON FARMING

### WHAT IS CARBON FARMING AND WHY IS IT IMPORTANT?

Carbon farming is a small, but established national industry, that has been making a significant contribution to Australia's climate crisis response for over a decade, whilst also increasingly delivering other important environmental, economic, social and cultural benefits to communities across the country.

Carbon farming refers to practices across the landscape that actively manage vegetation, fire, soil or livestock to increase storage of carbon in our landscapes, or to avoid release of damaging greenhouse gases, particularly methane and nitrous oxide.

Importantly, carbon farming can be implemented to create environmental, productivity, and social co-benefits such as: rural and regional economic and income diversification; new or restored native species habitat; retention and transference of cultural knowledge; greater agricultural productivity; and improved water quality. The potential market for carbon credits with verifiable co-benefits means multiple benefits for the land sector can be achieved for a fraction of the cost of pursuing those objectives individually through separate government programs.

### State of Play in Australia

Carbon farming makes a strong contribution to Australia's 2030 emissions reduction target of 26-28% on 2005 levels. Our national industry was born with the establishment of the Carbon Farming Initiative (CFI), which commenced operation in

Australia on 8 December 2011. A Federal Government carbon offsetting scheme established by the Carbon Credits (Carbon Farming Initiative) Act 2011 (the CFI Act), the CFI enabled emissions avoidance or carbon sequestration projects for the purpose of generating Australian Carbon Credit Units (ACCUs) with each unit being equivalent to one tonne of CO<sub>2</sub>e.

Operated by the Clean Energy Regulator (CER), the ERF is a national framework used to measure, report and verify emissions reductions against a range of project methods, and then issue ACCUs that can be sold back to the Government, or increasingly, to voluntary buyers in the private sector. As of September 2021, the Clean Energy Regulator (CER) has:

- registered more than 1000 emissions reduction projects under the Emissions Reduction Fund, and nearly 80% of these represent land-based vegetation, savanna burning or agriculture projects. These projects combined have generated more than 65% of the Australian Carbon Credit Units (ACCUs) issued by the CER to date.
- been the primary source of ACCU demand, committing \$2.5 billion of public ERF funding to projects through a 'reverse auction' process, that will then generate and sell ACCUs back to the government. Following its 12th auction in April 2021<sup>2</sup>, the CER has contracted over 181 million tonnes of abatement at an average price of \$12.32 to be delivered to the government over a 16 year period (2015 - 2031).

Outlined below are examples of carbon farming activities, including a national breakdown of ERF-funded activities, and a state and territory picture of where these activities are happening across the country.

**Whilst the ERF remains the primary buyer of ACCUs, expanding voluntary market signals are driving the rapid evolution of this industry (see Chapter 3: Market Dynamics).**

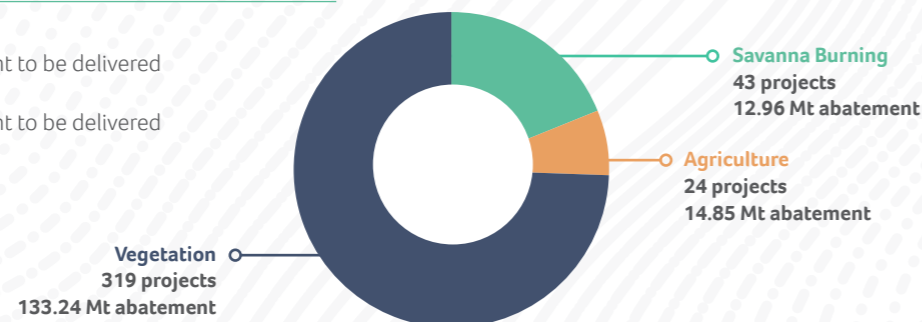
Figure 2: Examples of carbon farming methods approved under the ERF

Vegetation	Savanna Burning	Agriculture
<ul style="list-style-type: none"> <li>Regenerating native forest on previously cleared land.</li> <li>Protecting native forests by reducing land clearing.</li> <li>Planting trees to grow carbon stocks.</li> </ul>	<ul style="list-style-type: none"> <li>Managing bushfires in Australia's savannas to avoid high intensity late season fires.</li> </ul>	<ul style="list-style-type: none"> <li>Building soil carbon through changed farming practices such as crop stubble retention.</li> <li>Reducing emissions from beef cattle and milking cows through dietary supplements or efficient herd management.</li> <li>Capturing and destroying the methane from effluent waste at piggeries.</li> </ul>

Figure 3: Breakdown of land sector ERF contracted projects by methodology<sup>3</sup>

**Land Sector Total:**  
396 projects, 161.03 Mt of abatement to be delivered

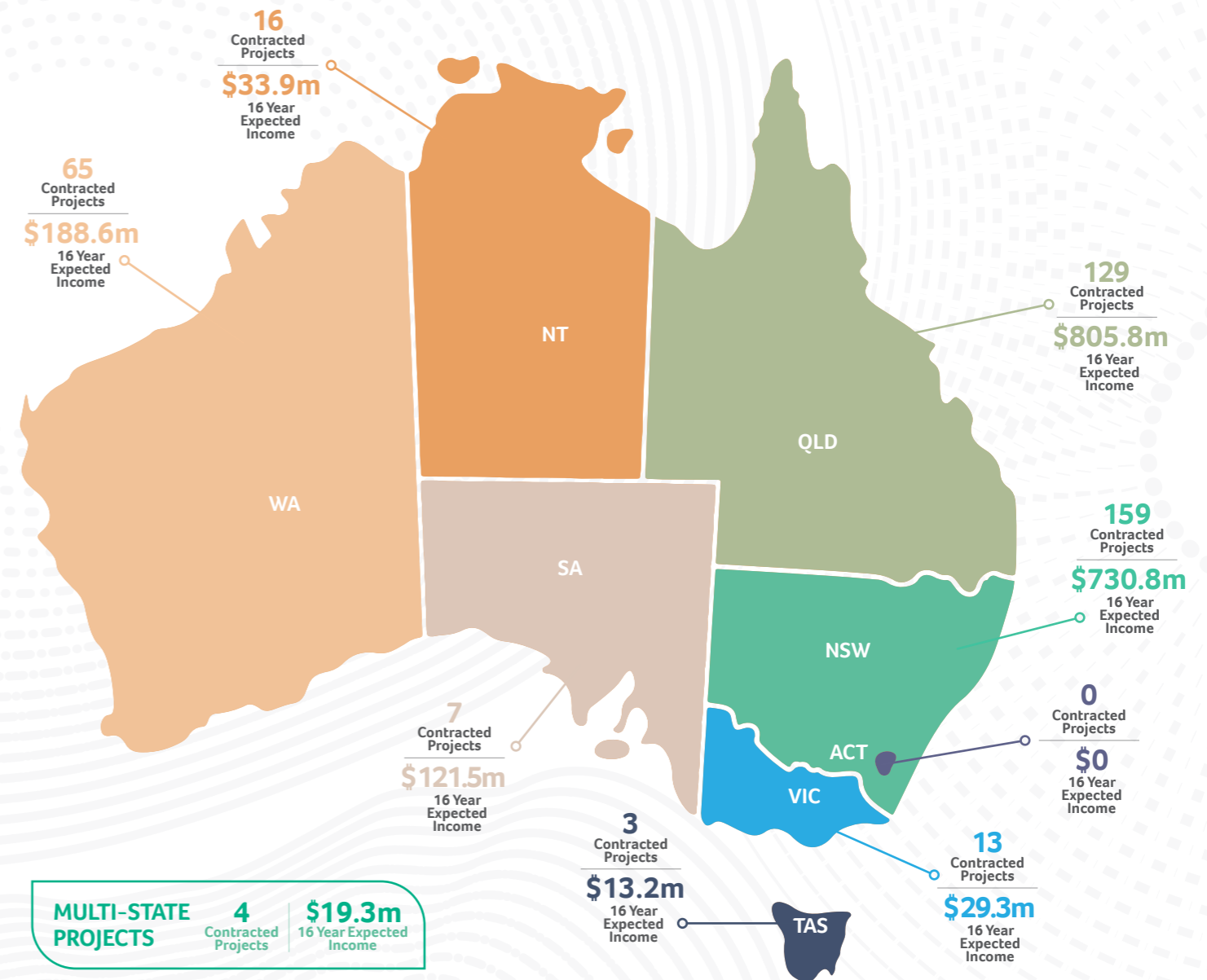
**ERF Total:**  
466 projects, 181.87 Mt of abatement to be delivered



<sup>2</sup> Clean Energy Regulator, <http://www.cleanenergyregulator.gov.au/ERF/Auctions-results/april-2021>, Accessed September 2021

<sup>3</sup> Clean Energy Regulator, Contract Register, <http://www.cleanenergyregulator.gov.au/ERF/project-and-contracts-registers/carbon-abatement-contract-register>, Accessed September 2021

Figure 4: Land sector projects contracted under the ERF, state breakdown



### State & Territory Participation

Using data from the CER's ERF Project Register, and Carbon Abatement Contract Register, the map above shows the state and territory breakdown for federal government- contracted land sector projects. The map shows the number of contracted projects in each state, as well as the predicted carbon revenue over the full life of the scheme, with crediting activities occurring from 2015, through until 2031.

Carbon revenue has been determined by multiplying the total contracted abatement (tonnes CO<sub>2</sub>e) by the average weighted auction price after twelve ERF auctions (\$12.32). Across Australia there is approximately \$1.94 billion worth of contracted abatement to be delivered by land sector projects<sup>4</sup>.

### Emerging Subnational Markets

Sub-national governments are developing investment programs that support localised carbon farming opportunities. The first of these is the **Queensland Government's Land Restoration Fund (LRF)**<sup>5</sup>, a \$500 million program supporting state-based land-sector carbon projects that deliver additional environmental, socio-economic, and First Nations co-benefits.

Similarly Western Australia's recent \$15 million **Carbon Farming and Land Restoration Program**<sup>6</sup> aims to realise agriculture's potential to sequester carbon in the landscape, deliver co-benefits and contribute to the growth of the WA carbon farming industry. Keep an eye out for other state programs coming soon!

<sup>4</sup> Clean Energy Regulator, Contract Register, <http://www.cleanenergyregulator.gov.au/ERF/project-and-contracts-registers/carbon-abatement-contract-register>, Accessed September 2021.

<sup>5</sup> Queensland Land Restoration Fund, <https://www.qld.gov.au/environment/climate-change/land-restoration-fund>, Accessed September 2021.

<sup>6</sup> Western Australia Carbon Farming and Land Restoration Program, <https://www.agric.wa.gov.au/carbon-farming/western-australian-carbon-farming-and-land-restoration-program>, Accessed September 2021.