



Australian Government
Australian Renewable Energy Agency

ARENA Annual Report 2014-15

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Annual Report 2014-15

ARENA



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Energy Agency

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Letter of transmittal

OFFICE OF THE CHAIR

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23 September 2015

The Hon Greg Hunt MP
Minister for the Environment
PO Box 6022
Parliament House
CANBERRA ACT 2600

Dear Minister

I am pleased to present to you the annual report of the Australian Renewable Energy Agency (ARENA) for the financial year 2014–15, in accordance with the requirements of the *Australian Renewable Energy Agency Act 2011* and the *Public Governance, Performance and Accountability Act 2013* (PGPA Act).

Under section 46 of the PGPA Act, the ARENA Board must prepare the annual report in accordance with the Public Governance, Performance and Accountability (Consequential and Transitional Provisions) Rule 2014.

The ARENA Annual Report 2014–15 details how ARENA is achieving its objectives to improve the cost competitiveness of renewable energy technologies and the supply of renewable energy in Australia. The report was approved by a resolution of ARENA's Board on 25 August 2015.

Yours sincerely



Greg Bourne
ARENA Chair

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Report from the Chair



The world is stepping up its renewable energy efforts and building on the momentum created over the past decade. The rapid growth in adoption of renewable energy is being driven by technological and commercial advances, and will continue as the world's energy systems are transformed.

Here in Australia, there is a growing realisation that our country is home to some of the best renewable resources in the world. We have the highest per capita solar resource and very good wind and wave resources, as well as potential in other areas.

Australia's challenge lies in fully realising its renewables potential and taking advantage of these resources, not only to achieve a cost effective energy system but also to become an exporter of energy intensive products and expertise based on renewable energy.

Bridging the gap between Australia's world-leading renewable potential and the market will help to develop and implement the next generation of affordable renewable energy.

ARENA helps do this by identifying and advancing the most prospective renewable energy technologies and applications through targeted, considered investment in projects right along the commercialisation pathway. Our support not only drives research and encourages innovation but supports pilot projects and helps to de-risk worthwhile deployment projects. ARENA also shares experience and know-how generated from each project with the sector.

To ensure that the projects we support are best placed to accelerate change, we keep an eye on the big picture so that we can respond to market conditions, technology and commercial developments, and industry needs. As a result, several of the projects in our investment portfolio have achieved Australian firsts, particularly at the research end of the development pathway. We are also supporting a number of landmark projects at the deployment end.

ARENA's role is unique in that we target our investment towards pre-commercial projects, but every project we fund must have an identified pathway to being fully commercial and adopted in the market. We also look for at least matching funding and encourage co-investment from sources other than the Australian Government. As a result, each dollar of ARENA funding has leveraged approximately \$1.50 of funding from other sources.

ARENA's distinction is also due to the skills-based board which works closely with the CEO Ivor Frischknecht and CFO Ian Kay; both from the banking and finance world; and ably supported by ARENA's dedicated staff.

The renewables industry in Australia has faced much uncertainty over the past year leading to a dramatic drop in investment during 2014-15. With Government legislation to abolish the agency still to be considered by the Senate, ARENA has faced similar uncertainty over the period. However, until enacted, ARENA very much remains open for business, with funding available until 2022.

In the coming year we will be seeking to invest in a number of new priority areas including large-scale solar photovoltaics, off-grid and fringe-of-grid, integrating renewables into grids, and renewables for industrial processes.

Added to ARENA's current investment portfolio, projects in these priority areas will not only help Australia to realise and benefit from its vast renewables potential, but become a leader in renewable technology and know-how and create options for Australia's energy and industry future.



Greg Bourne

Chair

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Report from the Chief Executive Officer



Over the coming half century there will be a dramatic increase in the proportion of our electricity generated from renewable sources. This will happen because renewable energy makes good business sense, and because consumers want cleaner, quieter and healthier sources of electricity supply. It will need to remain reliable, providing many more services than it does today.

Like any revolution, the transition to more distributed renewable energy is challenging. The energy industry is facing a new future, and this is where ARENA comes in. ARENA's role is to help make the transition to tomorrow's energy easier, cheaper and quicker.

ARENA has completed its third year of operation, focused on the twin objectives of reducing the cost and increasing the supply of renewable energy in Australia. With those goals in mind, we continued to invest in game-changing research and high quality projects that have the best prospect of advancing affordable renewable energy technologies and solutions.

We understand that in addition to being challenging, the transition to renewable energy will take time and has to be competitively driven. Many of the barriers to progress are related to being an early mover, because it often costs more to do something the first time.

As a result, ARENA helps projects to overcome early mover disadvantage, such as making up for the higher cost of finance, higher supply chain costs and larger construction contingency margins. We take a long lens approach because we know there are no shortcuts to achieving substantial, meaningful change. And we participate where others won't because the timeframes are too long and/or the rate of return isn't high enough to attract commercial investors.

Highlights of 2014-15 include the announcements of \$21.5 million in funding for 12 innovative solar research and development projects worth more than \$70 million. The results of another competitive research and development round will be announced by early 2016.

We also announced \$163 million in funding for another 25 projects, which operate at different stages along the innovation chain, creating new technology solutions, new skills and jobs and more efficient supply chains.

ARENA had a strong focus on regional and remote areas over the past year. We committed funding support for projects that are building the mining industry's confidence in renewable energy options for remote operations; providing cheaper and more reliable electricity with renewables in more than 30 off-grid Indigenous communities; and constructing Australia's largest solar farms in rural and regional locations.

We also provided support for innovation in storage solutions that are poised to change the way householders use rooftop solar, and provide a new way for electricity grid operators to improve reliability at low cost.

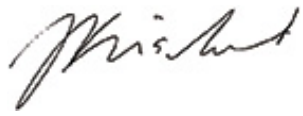
Other ARENA-supported projects involved the first-ever array of wave power generators connected to an electricity grid, the production of green crude from microalgae, and a number of renewable energy options for thermal energy.

A range of digital mapping and forecasting tools were also developed with ARENA support that will help both the renewable and broader energy industries to better plan, build, integrate and manage renewable energy.

The diversity of ARENA's investment portfolio reflects the value that we see in developing and keeping technology options open for the future.

Looking ahead, ARENA has \$1.3 billion in uncommitted funds. At 30 June 2015 we were assessing 116 applications that were seeking \$1.4 billion in ARENA funding for projects worth \$4.5 billion, of which only some will secure our investment.

We will continue to target our investments towards a renewable future by creating the conditions that accelerate change and increase the bankability of emerging renewables.



Ivor Frischknecht

Chief Executive Officer

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Highlights



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About ARENA

ARENA was created in 2012 to support improvements in the competitiveness of renewable energy and related technologies, and the supply of renewable energy. It does this by providing financial assistance to eligible, high-merit projects, developing analysis and advice, and sharing related knowledge and information.

The agency plays a unique role in the advancement of renewable energy. It provides support to hasten the commercialisation of emerging technologies and applications while being mindful that the process must focus on the most prospective innovations and can take many years.

Accordingly, ARENA's funding extends to 2022 and covers the innovation chain from laboratory research to pre-commercial deployment.

This distinctive function and scope ensures that ARENA complements other Australian renewable energy programmes and initiatives. Pre-existing renewable energy programmes and projects were merged into ARENA at the time of its establishment to further reduce the likelihood of overlapping roles and responsibilities.

ARENA provides funding grants not only to develop technologies but also to improve investment confidence in renewable energy projects. This is done by helping to offset the additional costs faced by early-movers, and reduce the risk that commercial investors perceive in renewable energy projects.

ARENA’s investment strategy is commercially focused and based on market opportunity, the extent to which ARENA can make a difference, and the mix of technologies and applications in the agency’s existing portfolio of projects.

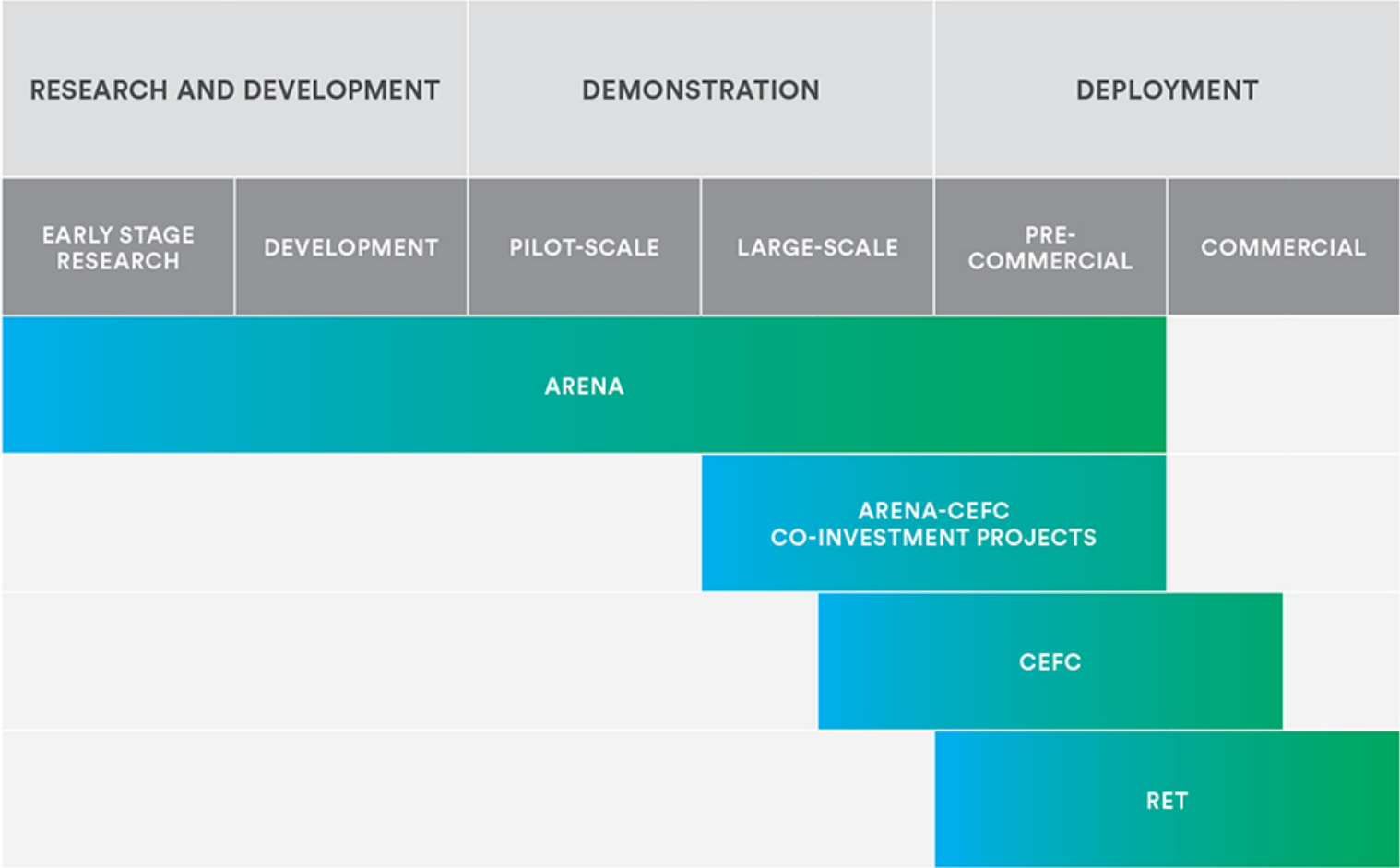
ARENA's relationship with the CEFC and RET

ARENA plays a complementary role to the Clean Energy Finance Corporation (CEFC) and Renewable Energy Target (RET) in advancing Australia’s renewable energy potential.

ARENA provides the support needed to accelerate the development of promising technologies towards commercialisation. The CEFC provides finance to de-risk and demonstrate bankability, which helps to bring near-commercial and commercial projects to reality. And the RET drives the uptake of the cheapest mature renewable energy technologies.

ARENA sometimes co-invests with the CEFC in later-stage projects that are not yet fully commercially competitive. These projects are also generally eligible for the RET, which reduces the amount of CEFC and ARENA funding required.

Figure 1: ARENA, the CEFC and RET



Governance and operational performance

Enabling legislation

The Australian Renewable Energy Agency (ARENA) is a statutory agency established under the *Australian Renewable Energy Agency Act 2011* (ARENA Act). On 1 July 2014 the *Commonwealth Authorities and Companies Act 1997* (CAC Act) was repealed and replaced with the *Public Governance, Performance and Accountability Act 2013* (PGPA Act). ARENA is a corporate Commonwealth entity under the PGPA Act.

The objectives of the ARENA Act are to improve the competitiveness of renewable energy technologies and increase the supply of renewable energy in Australia.

ARENA provides financial assistance to renewable energy technologies across the innovation chain from research and development to demonstration, deployment and commercialisation. ARENA also develops analysis and advice, sharing information and knowledge on renewable energy and related technologies. ARENA works cooperatively with both industry and government to maximise the benefit from the financial assistance it provides.

ARENA also provides advice to the portfolio Minister in relation to renewable energy and related technologies.

To ensure accountability and transparency for expenditure of a significant sum of public funds, the Australian Government has put in place safeguards that ARENA must follow when making funding decisions.

The ARENA Act requires the portfolio Minister to approve programme guidelines that permit grants for projects in excess of \$15 million. The Minister must also approve projects where grants in excess of \$50 million are to be awarded.

The portfolio Minister appoints ARENA Board members (other than the Secretary of the portfolio Department, who is on the Board by virtue of s29 of the ARENA Act) and the CEO. The Minister also approves ARENA's General Funding Strategy.

During the financial year there was one amendment to ARENA's enabling legislation via the *Clean Energy Legislation (Carbon Tax Repeal) Act 2014*. This amended ARENA's funding schedule (see ARENA funding on p17).

No legislative instruments were enacted during the year under the ARENA Act.

ARENA funding

ARENA provides financial assistance to develop technologies and improve investment confidence in renewable energy projects.

Under the ARENA Act, the agency has significant discretion and flexibility in how it chooses to provide this financial support to the renewable energy sector. However the ARENA Act requires the portfolio Minister to approve significant programme guidelines and projects (see p16).

S64 of the ARENA Act stipulates ARENA's funding to 2022. Subsequent changes to ARENA's funding were enacted through the *Clean Energy Legislation (Carbon Tax Repeal) Act 2014* (see below) which received royal assent on 17 July 2014.

This amendment legislated and brought the following into effect:

- a 2013-14 Federal Budget measure to re-profile \$370 million in funding for ARENA over the forward estimates (2014-15 to 2016-17) into later years (2019-20 to 2021-22)
- a reduction in funding for ARENA by \$434.9 million over the forward estimates (2014-15 to 2016-17).

The table below summarises the impact of these changes on ARENA's funding, taking into account actual expenditure to 2013-14 and subsequent rollovers of unspent funding.

These funding changes did not affect projects that already had funding agreements in place with ARENA.

Table 1: Amendments to ARENA Act s64

Financial year	ARENA Act \$'000	ARENA Act (as amended) \$'000
2012–13	\$659,639 ¹	\$56,193 ²
2013–14	\$344,904	\$265,150 ²
2014–15	\$436,640	\$244,493 ²
2015–16	\$321,810	\$355,964 ³
2016–17	\$299,550	\$56,950
2017–18	\$221,000	\$499,893
2018–19	\$237,000	\$237,000
2019–20	\$368,340	\$468,340
2020–21	–	\$135,000
2021–22	–	\$135,000

¹ For 2012-13 \$278.9 million was added to ARENA's special appropriation in accordance with the ARENA Act Subsection 64(3) Determination (signed by the Minister for Finance on 25 June 2013), and a further \$88.2 million added relating to Australian Solar Institute Limited's closing bank account balance in accordance with the ARENA Act Subsection 64(5).² Actual amounts drawn down and spent in 2012-13, 2013-14 and 2014-15.³ Includes \$266.0 million of unspent 2014-15 funding rolled over, in accordance with the ARENA Act Subsection 64(2).

Key governance events and other activities affecting ARENA

The Australian Government announced in the 2014-15 Budget its intention to abolish ARENA, consolidate its functions into the Department of Industry and Science, and return uncommitted funds to the budget. This would require the repeal of the ARENA Act.

To give effect to this announcement, the ARENA Repeal Bill was tabled in the House of Representatives on 19 June 2014. If the Bill is passed by the Parliament, ARENA's signed funding agreements and other assets and liabilities at the time of repeal would transfer for management to the Department of Industry and Science.

The Bill was passed by the House of Representatives on 1 September 2014, and at 30 June 2015 remained subject to decision by the Senate. Accordingly, ARENA continues to operate under the ARENA Act (see p16-17 for further details).

ARENA did not have any 'material' matters disclosed in the financial statements (as defined in paragraph 7 of the Public Governance, Performance and Accountability (Financial Reporting) Rule 2015).

Responsible minister

The Minister responsible for ARENA in 2014-15 was the Hon Ian Macfarlane MP, Minister for Industry and Science.

Since its establishment ARENA has worked with successive relevant Ministers, keeping them informed about the operations of ARENA by providing reports of each ARENA Board meeting, including key deliberations, meeting outcomes and significant correspondence.

ARENA has also outlined to successive Ministers its efforts to improve the competitiveness of renewable energy technologies and increase renewable energy supply in Australia over the longer term, consistent with the ARENA Act.

Ministerial approval

The General Funding Strategy 2015-16 to 2017-18 (GFS) and the Advancing Renewables Programme Guidelines were presented to the Minister in June 2015, and approved on 8 July 2015. Projects in excess of \$50 million and guidelines that permit grants for projects in excess of \$15 million require ministerial approval.

The GFS for 2013-14 to 2015-16 remained in force during 2014-15.

Ministerial requests and directions

No requests were made by the Minister under section 11 of the ARENA Act for 2014-15, and no ministerial directions were made under section 13 in respect of seeking advice in relation to renewable energy technologies.

Under section 22 of the PGPA Act, ARENA must comply with Government Policy Orders (made by the Finance Minister) to the extent that they apply. No Government Policy Orders applied to ARENA for 2014-15.

ARENA Board

At 30 June 2015, the Directors of the ARENA Board were Mr Greg Bourne (Chair), Ms Judith Smith, Mr Danny Broad, Mr Martin Hoffman and Ms Glenys Beauchamp (ex-officio). Mr Hoffman's term ceased in July 2015.

Meetings and the operation of the Board were conducted in accordance with the requirements of legislation applicable to ARENA. Further information on the Board is provided at Appendix 1.

The Board regularly reviewed its operation as part of its commitment to continually improve the efficiency and effectiveness of its processes.

The Board continually refreshed its knowledge of the renewable energy sector through in-depth workshops. Its funding decisions were informed by analysis of the market context and commercialisation prospects of relevant technologies.



Chair: Greg Bourne



Director: Danny Broad



Director: Judith Smith



Director: Martin Hoffman



Ex-officio Director: Glenys Beauchamp

ARENA Chief Executive Officer

At 30 June 2015, the ARENA CEO was Mr Ivor Frischknecht. Further information on the CEO is provided at Appendix 1. The CEO is supported by an executive team, including a Chief Financial Officer (CFO).

ARENA Advisory Panel

The ARENA Advisory Panel provides advice to support the development and selection of projects for funding. The panel's role includes assessing funding applications and providing expert specialist advice as required.

For a current list of advisory panel members see [ARENA Advisory Panel](#).

Staff

At 30 June 2015, the agency had two ARENA staff (CEO and CFO), 51 departmental staff (47.7 FTE), including staff in non-ongoing positions and one staff member on secondment out of ARENA, and a number of specialist consultants.

During 2014-15, the majority of ARENA's staff was based in Canberra (Australian Capital Territory). Staff working in other locations included two staff members (2.0 FTE) in Sydney (New South Wales), and one (0.8FTE) in Albury (New South Wales). Specialist consultants also worked in ARENA's Sydney and Melbourne offices.

Culture

ARENA is a dynamic and outcomes-oriented agency. It is staffed by highly qualified and experienced people overseen by a Board that is commercially and technically astute. The culture of ARENA emphasises a commercially-orientated and flexible attitude when dealing with stakeholders. ARENA aims to be an agile agency that responds quickly to changes in the operating environment.

Figure 2: ARENA organisational structure at 30 June 2015



¹Appointment made under the ARENA Act

Operating environment

In 2014-15, ARENA’s operating environment encompassed:

- the Board, CEO, CFO and financial assistance initiatives administered under the ARENA Act and the PGPA Act
- departmental resources provided to ARENA and subject to the *Public Service Act 1999 and the PGPA Act*.

ARENA operated in compliance with a Board-approved governance framework that sets out the application of the differing requirements under these various Acts.

Service level agreement

The portfolio Department provides corporate support for ARENA’s day-to-day operations. This relationship is managed by a service level agreement, which sets out the arrangements for the provision of services to ARENA.

Planning and reporting framework

ARENA uses the framework shown in Table 2 to streamline its planning and reporting processes.

Table 2: Planning and reporting framework 2014-15

Audience	Planning	Reporting
Board and Minister	<div>– Ministerial Statement of Expectations</div> <div>– ARENA Statement of Intent</div> <div>– General Funding Strategy</div> <div>– Work Plan</div>	<div>– Board meetings</div> <div>– CEO reports to Board</div> <div>– Chair reports on Board meetings to Minister</div> <div>– Risk and Audit Committee Chair reports to Board</div>
Funding recipients	<div>– Investment Plan</div>	<div>– ARENA website</div>
Other external		<div>– Annual Report</div> <div>– Senate estimates hearings</div>

Internal	<ul style="list-style-type: none"> – Business Plan – Risk Management Plan – Fraud Control Plan – Business Continuity and Disaster Recovery Plans – Risk and Audit Committee Annual Work Plan – Internal Audit Work Plan – Other Board-approved policies 	<ul style="list-style-type: none"> – Board meetings – Risk and Audit Committee meetings – ARENA executive meetings – ARENA staff meetings

Operational priorities

ARENA’s approach to funding support is set out in its GFS and Investment Plan (IP). Refer to page 29 for more information. The IP for 2013-14 to 2015-16 sets out how ARENA will measure its performance.

Table 3 shows ARENA’s results against the performance measures set out in the IP.

Financial performance

ARENA reported a net surplus of \$22.9 million for 2014-15. This was the result of accounting requirements to report a number of items funded through revenue on the Statement of Financial Position and, all things being equal, is expected to be reversed in 2015-16. The Australian Government provided ARENA with \$244.4 million in revenue for ARENA operations.

Table 3: Results against ARENA performance measures 2014-15 (at 30 June 2015)

What	How	Measure
Improve the competitiveness of renewable energy technologies	Improve the technical and commercial readiness of technologies within Australia from ARENA’s actions.	See Programme Performance on pages 24-47
	Maintain a diverse portfolio of technologies.	Ongoing. See Programme Performance on pages 24-47
Increase the supply of renewable energy in Australia	Increase the total amount of renewable energy within Australia from ARENA’s actions.	Projects expected to install at least 495 MW capacity
	ARENA funding leverages additional funding and in-kind contributions from project partners.	Leverage ratio 1.5

Agency resource statement

The agency resource statement (see Table 4) reconciles the final usage of all resources in cash terms, by declaring the actual available appropriation for 2014-15, including carried forward cash balances and further adjustments, and comparing this to the actual payments made.

ARENA was not published as a Portfolio Agency in the 2014-15 Portfolio Budget Statements, in line with the Government’s stated intention to repeal the ARENA Act.

The difference between the payments made by the portfolio Department of \$244.4 million shown in Table 4 and the actual total expenses of \$236.5 million disclosed in Table 5 are due to accruals and prepayments, plus Resources Received Free of Charge from the portfolio Department.

The balance remaining of \$266.0 million is largely a result of the expenditure profile of ARENA differing from ARENA's standing appropriation.

Table 4: Agency resource statement 2014-15

	Actual available appropriation for 2014-15 \$'000	Payments made 2014-15 \$'000	Balance remaining 2014-15 \$'000
	(a)	(b)	(a) – (b)
Opening balance/Reserves at bank	26	(443)	469
REVENUE FROM GOVERNMENT			
Payments from related entities¹			
Amounts from portfolio department	>510,466 ²	244,493	265,973
Total funds from government	510,466	244,493	265,973
Total net resourcing & payments for ARENA	510,492	244,050	266,442

¹ Amount received from Department of Industry and Science, which receives a Special Appropriation for the purposes of funding ARENA.² Comprised of \$194.3 million contained within the ARENA Act (as amended) and \$316.1 million of unspent funding rolled over from 2013-14 in line with Subsection 64(2).

Expenses by outcome

The budget for ARENA was not required to be presented as the agency is not reported as a separate entity in the Portfolio Budget Statements of the portfolio Department, in line with the Government's stated intention to repeal the ARENA Act.

Table 5: Expenses by outcome 2014–15

Outcome 1: Support improvements in the competitiveness of renewable energy and related technologies and the supply of renewable energy by administering financial assistance, developing analysis and advice about and sharing information and knowledge with regard to, renewable energy and related technologies.

Programme 1: Supporting Outcome 1

Revenue from government

Payments from related entities	–	236,517	(236,517)
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Total for Programme 1	–	236,517	(236,517)
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Outcome 1 Totals by appropriation type

Revenue from government

Payments from related entities	–	236,517	(236,517)
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Budget 2014- 15 \$'000	Actual Expenses 2014-15 \$'000	Variation 2014-15 \$'000
(a)	(b)	(a) – (b)

Total expenses for Outcome 1	–	236,517	(236,517)
	2014–15	2014–15	Variation
Average Staffing Level (number) ¹	–	2	(2)

¹ ARENA has only two employees, the CEO and CFO. Under section 62 of the ARENA Act all other staff necessary to assist ARENA must be persons employed under the *Public Service Act 1999* who are employed by the portfolio Department and made available to ARENA by the Secretary of the Department.

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Programme performance

Programme overview

ARENA’s funding programmes support renewable energy activities that develop technologies, improve investor confidence, build skills and knowledge, and hasten commercialisation.

The funding programmes uniquely span the innovation chain from research in the laboratory to large-scale pre-commercial deployment activities.



RESEARCH AND
DEVELOPMENT
PHASE

142



DEMONSTRATION
PHASE

85



SOLAR PV

110



SOLAR
THERMAL

38

232

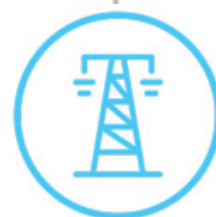
TOTAL PROJECTS SUPPORTED

ACTIVE

190

COMPLETE

42



DEPLOYMENT
PHASE

5

TECHNOLOGY



SOLAR

148



ENABLING

48



BIO ENERGY

17



HYBRID

11



OCEAN

5



GEOTHERMAL

3

Strategic approach to investment

ARENA's investment objectives are to:

- demonstrate renewable energy's role in addressing Australia's current energy issues and/or
- provide renewable energy technology options for the long term.

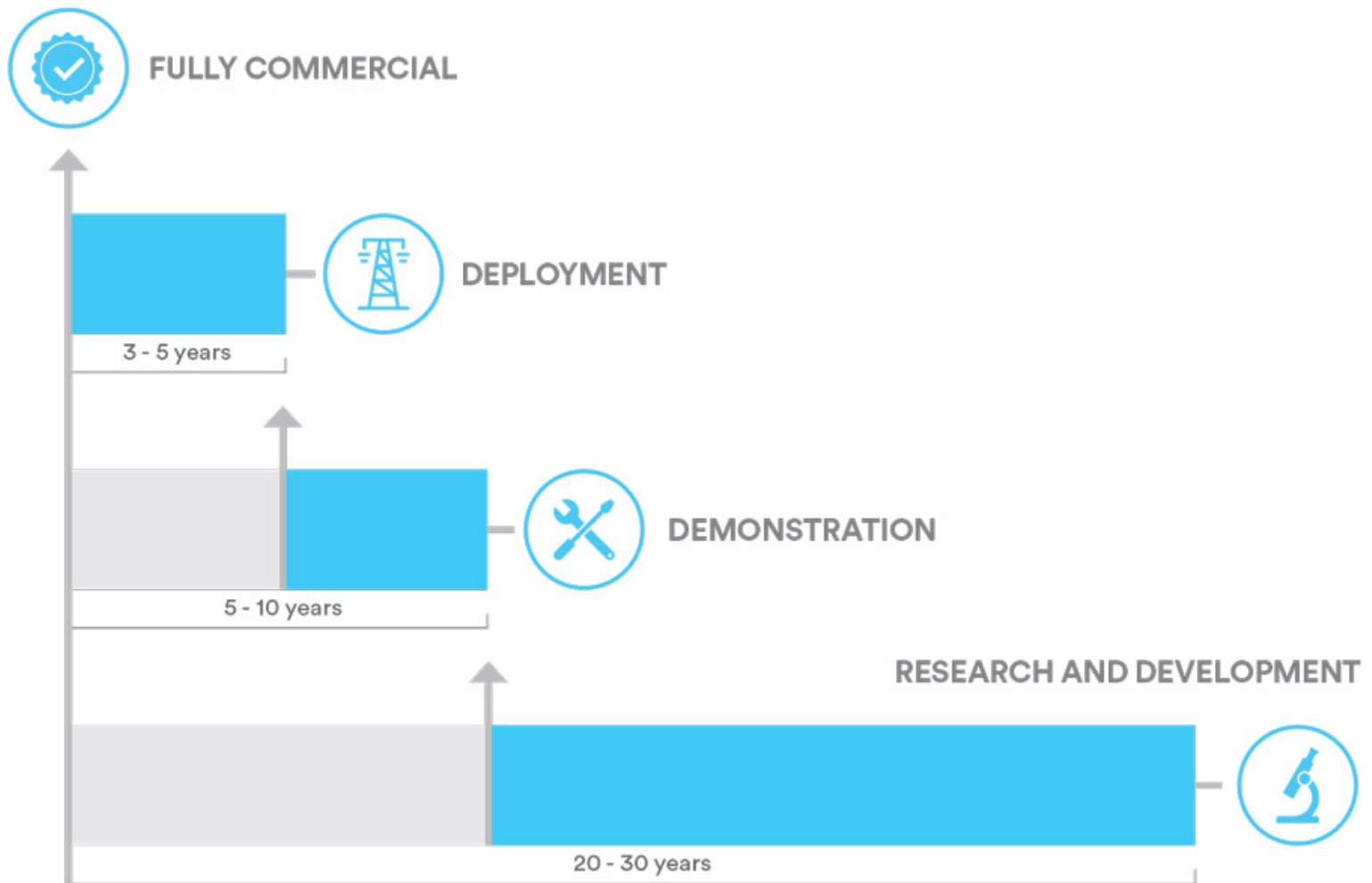
These objectives reflect the range of timeframes over which ARENA intends its investments to contribute to reducing the cost and increasing the use of renewable energy.

Because meaningful and lasting change takes time, ARENA takes a long-term view with the aim of having maximum impact from its investments by 2020 to 2040.

To achieve its objectives, ARENA funds activities that are expected to advance renewable energy technologies towards commercial readiness, improve business models or reduce overall industry costs.

This reflects ARENA's functions in the ARENA Act, which include providing financial assistance for research, development, demonstration, commercialisation or deployment of renewable energy and related technologies, as well as the storage and sharing of related knowledge and information.

Figure 3: ARENA's innovation impact



AGL Solar Farm

By AGL

Construction of a large-scale solar farm, over two locations, to develop Australian skills and experience.

At 155 MW it will be the largest solar PV plant in the southern hemisphere. The majority of ARENA funds were spent on the Australian supply chain to reduce supply chain costs.

- \$167 million – ARENA funding
- \$440 million – Total project value
- 102MW – at Nyngan site
- 53MW – at Broken Hill site

Investing along the innovation chain

In order to support the development of lower cost renewables and accelerate their progress towards commercialisation, ARENA focuses on areas where it has strengths in solving problems and reducing barriers to commercialisation, as well as the most effective ways to unlock investment capital.

ARENA applies that knowledge not only to research and development activities but also to projects that have reached the demonstration and pre-commercial phases.

Paired with ARENA’s long-term funding, this broad investment scope makes the agency uniquely positioned to help Australia’s renewable energy technologies move along the commercialisation pathway, or innovation chain (see Figure 4), to the brink of commercialisation.

General Funding Strategy and Investment Plan

ARENA provides funding assistance to renewable energy activities in accordance with its [General Funding Strategy \(GFS\)](#) and [Investment Plan \(IP\)](#).

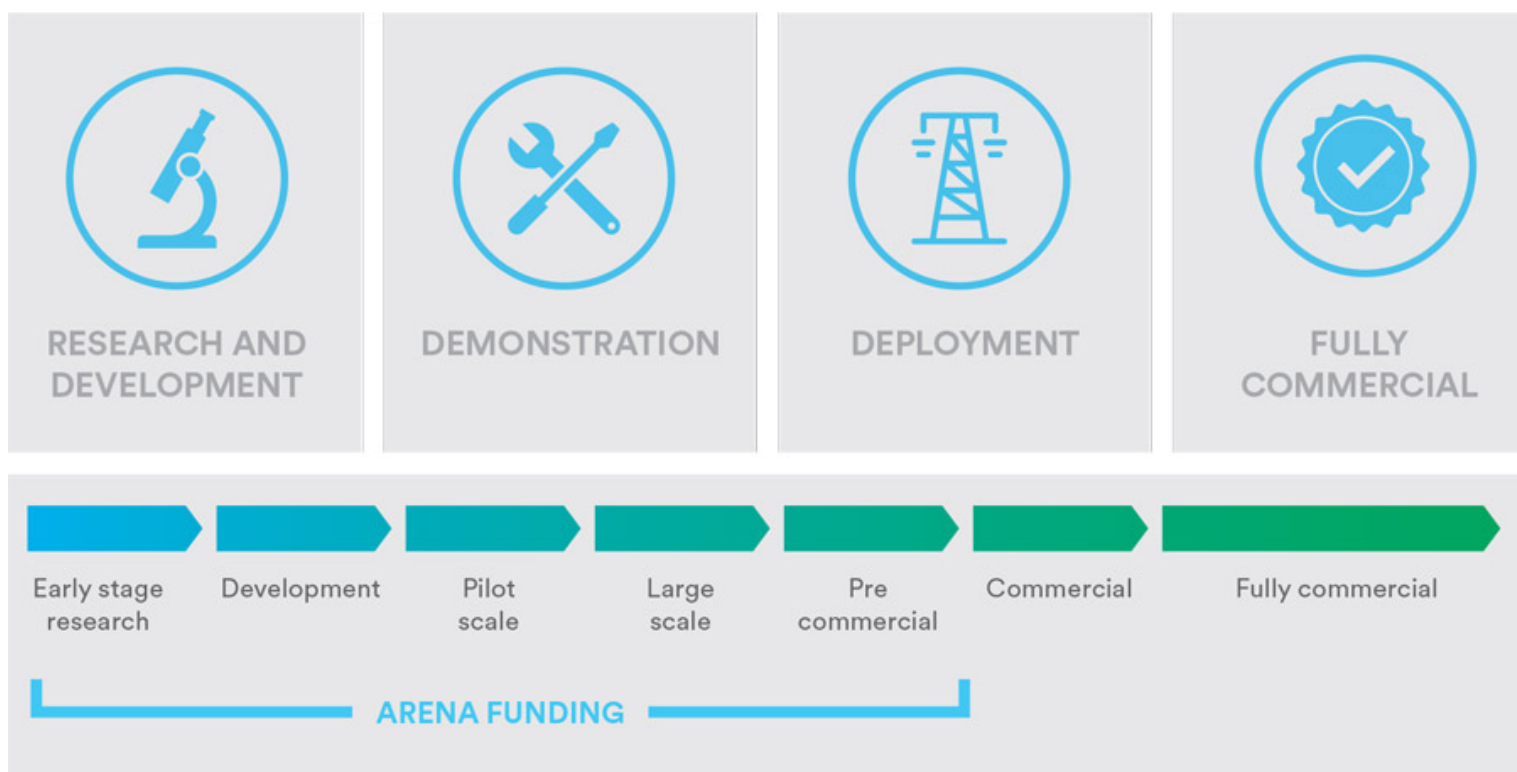
The agency uses the principles in the GFS to identify investment focus areas, which are provided in the IP. To determine which renewable energy activities will be financially supported, ARENA assesses all proposals for best fit with the investment focus areas.

The GFS is reviewed each year, updated if necessary, and provided to the portfolio Minister for approval. The IP is reviewed from time to time and updated if necessary.

Investment priorities in 2014-15

ARENA focused its new investments during 2014-15 on activities that explored opportunities for renewable energy generation and fuels in off-grid and fringe-of-grid areas, and ways to overcome the challenges presented by the integration of renewables into major electricity grids.

Figure 4: ARENA funding across the innovation chain



Perth Wave Energy Project By Carnegie Wave Energy

Commercial-scale wave energy array connected to the grid. First array of wave power generators connected to an electricity grid in Australia and worldwide.

Commenced generating electricity for Australia’s largest naval base HMAS Stirling in February 2015.

- \$13 million – ARENA funding
- \$32 million – Total project value

Programmes and initiatives in 2014-15

The programmes and initiatives that advanced ARENA's objectives during 2014-15 were:

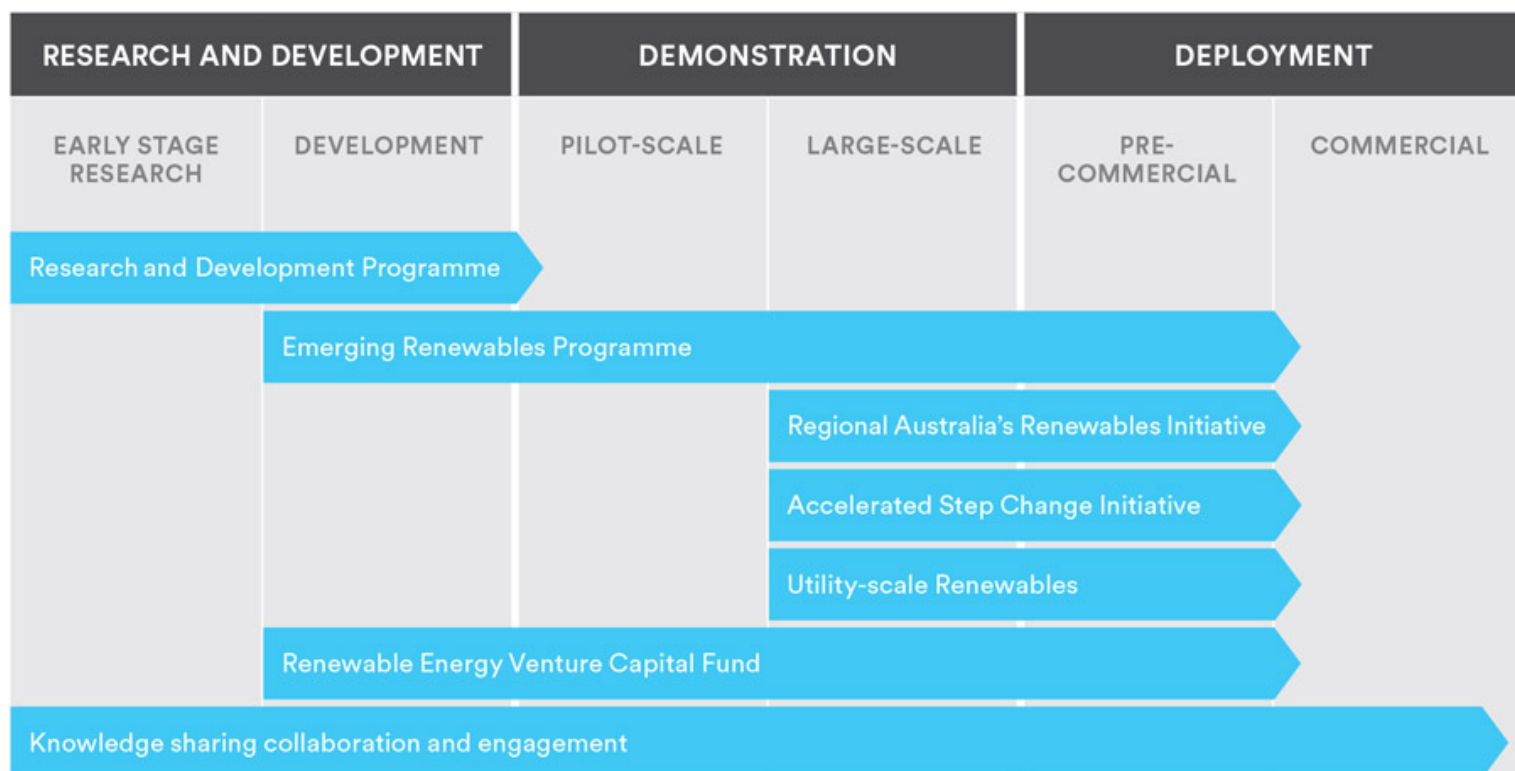
- Deploying Utility Scale Renewable Energy (Big Solar), including utility scale solar projects
- Research and Development (R&D) Programme, including management of ongoing projects, fellowships and scholarships from the former Australian Solar Institute
- Emerging Renewables Programme (ERP)
- Regional Australia's Renewables (RAR) Initiative, including
 - Regional Australia's Renewables Industry Programme (I-RAR)
 - Community and Regional Renewable Energy Programme (CARRE)
- Accelerated Step Change Initiative (ASCI)
- Supporting High-value Australian Renewable Energy Knowledge (SHARE)
- Renewable Energy Venture Capital Fund Programme (Southern Cross Renewable Energy Fund)
- Advanced Biofuels Investment Readiness Programme (ABIR) projects.

Figure 5 demonstrates where each of these programmes and initiatives apply to the innovation chain.

Funding mechanisms

ARENA uses a range of funding mechanisms to provide the appropriate type and level of support for projects. These include grant-based financial support mechanisms, which may include recoupable grants, through open programmes or targeted competitive funding rounds, as well as the commissioning of specific analysis or other work as required.

Figure 5: ARENA programmes across the innovation chain



Technology Readiness Levels and Commercial Readiness Index

Technology Readiness Levels

The Technology Readiness Level (TRL) index is a globally accepted benchmarking tool for tracking progress and supporting the development of a technology through the early stages of the innovation chain, from blue sky research (TRL 1) to actual system demonstration over the full range of expected conditions (TRL 9).

ARENA uses the US Department of Energy Technology Readiness scale to measure the technology readiness of renewable energy projects.

Commercial Readiness Index

ARENA also uses a Commercial Readiness Index (CRI) to assess the commercial viability of projects.

The CRI was developed by ARENA based on pre-existing academic research and extensive consultation with industry, and has been adopted for use by a number of entities internationally, including the Hawaiian Electric Power Companies to inform future investment in electricity generation capacity.

The CRI is used from the stage where a technology can be trialled and demonstrated in the field (for example TRL 7) up to the stage where the technology is being commercially deployed and has become a bankable asset class (CRI 6).

The index provides a rigorous structure for evaluating where one or more industry sectors are facing barriers, and enables ARENA to structure its funding support to best reduce risks and barriers at the various stages along the pathway to commercialisation.

Both the TRL and CRI are publicly available on the ARENA website (see [Readiness tools](#)) for applicants to use when considering their projects and developing funding applications for ARENA consideration.

Figure 6: Technology Readiness Level and Commercial Readiness Index on the innovation chain



Project selection process

ARENA has identified investment focus areas that will help the organisation achieve its objectives. The investment focus areas guide ARENA’s investment decisions, either as merit criteria for open programmes or as eligibility criteria, in some cases, for competitive funding rounds.

All projects funded by ARENA must also have an identified pathway to commercialisation, which is assessed using the TRL and CRI detailed on the previous page.

ARENA works collaboratively with proponents, except in the case of competitive funding rounds, and undertakes due diligence on proposals to maximise the capacity of projects to deliver value for money and meet ARENA objectives. This may include the use of specialist technical and financial advice to ensure maximum value for money and projects are rigorously managed.

Figure 7 indicates the general process used by ARENA to assess funding applications, which may differ depending on the programme or competitive round. More information is provided in the programme guidelines which are available at [Programmes](#).

Figure 7: Indicative ARENA application assessment process

Note: May differ between programmes. *Involves staff, ARENA Advisory Panel and ARENA Board



Programme outcomes

Over the course of 2014-15, ARENA continued to consolidate and build:

- 49 applications for funding were formally assessed
- 37 new project funding approvals were announced
- 24 projects reached completion
- 4 projects were discontinued.

From ARENA's commencement until 30 June 2015, \$1.1 billion in support had been spent or committed by the agency for 232 projects with a total value of \$2.7 billion. Each dollar of ARENA funding leveraged approximately \$1.50 of funding from other sources.

Projects for which ARENA provided financial assistance in 2014-15 are listed in Appendix 2 of this report. Project profiles are also published on the ARENA website at [Projects](#).

Deploying utility-scale renewable energy

ARENA has announced two large-scale, grid-connected, pre-commercial renewable energy deployment projects. At 30 June 2015, ARENA had committed \$268 million to these utility-scale solar PV projects, which have a combined total value of \$628 million and have the potential to add 211 megawatts of new generation capacity to the east-coast electricity grid.

First of a kind concentrated solar PV power tower **By RayGen Resources**

Pre-competitive pilot of sun-tracking heliostat mirrors that focus sunlight onto a central receiver. Supplying 200 kW of peak power to a local agricultural business.

- \$1.75 million – ARENA funding
- \$3.6 million – Total project value

Redeployable hybrid power **By Laing O'Rourke**

Pilot-scale deployment of 1 MW fully redeployable hybrid solar/diesel power plant. Supplying power to a large construction project's 350-bed accommodation village.

- \$450 thousand – ARENA funding
- \$1.7 million – Total project value

Northern Territory Solar Energy Transformation Program **By Power and Water Corporation**

Integrating 10 MW of solar PV into more than 30 remote communities to displace the use of diesel for power generation.

- \$27.5 million – ARENA funding
- \$55 million – Total project value

Research and Development Programme

ARENA's Research and Development (R&D) Programme provides support to world-class research and development projects to increase the competitiveness and use of renewable energy technologies.

The Programme's objectives are to deliver a range of high quality and innovative renewable energy technologies that: enhance Australia's research position or are specific to Australian conditions; increase relevant skills, capacity and knowledge; or increase investment that improves technology readiness and commercial readiness of priority renewable energy technologies.

The results of the first competitive funding round under the R&D Programme, which focused on solar excellence, were announced in August 2014. The competitive round involved the assessment of 110 applications for funding, and the commitment of \$21.5 million in ARENA funds for 12 cutting-edge solar research and development projects totalling more than \$60 million.

A second competitive funding round was announced in April 2015, offering up to \$20 million for partnerships between industry and eligible Australian research institutions to develop and commercialise renewable energy technologies, and provide a broad range of energy options to reduce future energy costs. The outcomes of this round are expected to be announced by early 2016.

The R&D Programme complements the portfolio of solar research projects that were transferred to ARENA from the former Australian Solar Institute.

During 2014-15 ARENA's research and development activities involved 60 projects, 47 research fellowships and 35 PhD scholarships, with combined ARENA grants of \$188 million. These activities include two strategic research initiatives, the Australian Solar Thermal Research Initiative (ASTRI) and the Australia-US Institute for Advanced Photovoltaics. For more information see [Research and Development Programme](#).

Fellowships and scholarships

ARENA supports PhD scholars and post-doctoral fellows to conduct research into a range of solar technologies. \$18.5 million has been committed to more than 80 projects, the last of which is scheduled to complete in 2017.

**\$18.5
million**
ARENA FUNDING

Solar and storage trial for residential development **By Synergy**

Testing the commercial feasibility of a new energy retail model that involves community scale battery storage and more than 100 rooftop solar PV systems.

- \$3.3 million – ARENA funding
- \$6.7 million – Total project value

Emerging Renewables Programme

The Emerging Renewables Programme (ERP) supports studies and projects that drive innovation in renewable energy technologies, and reduce or remove roadblocks to commercialisation.

Over the past year ARENA supported a broad range of feasibility studies through ERP, as well as development, demonstration and early-stage deployment projects.

During the period 24 new funding agreements were entered into, representing \$62 million in ARENA funding and \$255 million in partner co-contributions. At 30 June 2015 ARENA was managing 36 projects under ERP.

Regional Australia's Renewables

The RAR Initiative supports renewable energy projects in remote off-grid or fringe-of-grid locations, including mining operations and remote communities.

A focus for the initiative is to displace expensive existing diesel generation and lower the perceived investment risk of renewable energy. RAR also seeks to reduce roadblocks to renewable energy deployment through ongoing knowledge sharing, with a focus on system integration, output variability, storage and project construction and

related logistics.

RAR has two components: an industry programme (I-RAR) and a community programme (CARRE). I-RAR focuses on the application of renewable energy for industrial applications, particularly the mining industry. Through CARRE, ARENA is working with network businesses to demonstrate the viability and reliability of renewable energy systems for small and very remote off-grid communities.

RAR Industry Programme

In the reporting period, \$98 million in ARENA financial assistance was awarded to eight I-RAR projects worth \$212 million.

Community and Regional Renewable Energy Programme

Four CARRE projects worth \$98 million were awarded \$50 million in ARENA financial assistance during the same reporting period.

Green crude By Muradel

Australia's first integrated demonstration scale plant to sustainably convert microalgae into green crude.

Producing 30,000 litres of green crude each year.

- \$4.4 million – ARENA funding
- \$10.8 million – Total project value

Accelerated Step Change Initiative

ARENA launched ASCI in June 2013 to place the agency in a flexible position to respond to significant but unforeseen opportunities that may arise but are not captured under its other funding programmes. No ASCI projects were announced by ARENA during the reporting period.

Supporting High-value Australian Renewable Energy Knowledge

ARENA undertakes and supports knowledge sharing to overcome or reduce barriers to the deployment of renewable energy that are caused by a lack of information about renewable energy technologies. Accordingly, the capture and sharing of knowledge is an essential requirement for all activities supported by ARENA.

ARENA's approach to knowledge sharing is to work with industry to collect, store, analyse, and share data, information and lessons learned that are of value to renewable energy developers, financiers, regulators and end users.

During the reporting period, ARENA supported knowledge sharing in the following ways:

1. ARENA funded projects

All projects funded by ARENA are required to include knowledge sharing outcomes that specify the knowledge the project will generate and how it will be shared with the industry and public. These knowledge sharing reports are available at [Projects](#) on the profile page of individual projects. All knowledge sharing reports are also available from ARENA's [Knowledge bank](#).

2. Directly commissioned work

In the reporting period, ARENA supported the development of new knowledge as well as knowledge sharing systems and platforms including:

- an analysis of the energy storage sector to inform the identification of ARENA's investment focus areas
- the Australian PV Institute's award-winning Australian Solar Mapping Tools

- the Energy Networks Association's online stocktake of information on over 170 renewable energy grid projects from across Australia as well as the most relevant international projects, including Europe, the US, Korea and Japan.

3. Proponent initiated projects

ARENA also provided support under the Emerging Renewables Programme for industry initiatives to create high-value knowledge products. These included:

- development by National ICT Australia (NICTA) of an online national renewable energy and energy infrastructure mapping platform
- development of the University of Adelaide's online Australian energy storage knowledge bank
- creation by the University of Technology, Sydney of online maps of electricity network constraints to better inform network investments and increase the use of renewables.

4. ARENA facilitated activities

ARENA also connected people to knowledge and each other by organising knowledge sharing events. During the reporting period these included:

- Big Solar CEO roundtable held during Clean Energy Week
- meetings of RAR and Big Solar project proponents to share knowledge and lessons learned, including managing risks; building, commissioning and operating remote projects; community consultation; and WHS
- meeting of RAR and Big Solar project proponents with lead solar PV and solar thermal researchers at the Asia Pacific Research Conference to discuss research priorities for industry and trends
- presentation and discussion of ARENA funded feasibility study and solar thermal projects at ARENA funded ASTRI annual meeting
- facilitation of five researcher-industry workshops to discuss the second competitive funding round for ARENA's R&D Programme.

Australian Wave Energy Atlas By CSIRO

An online national wave energy atlas that will allow users to better assess the feasibility of wave power projects.

With some of the best wave energy resources in the world, Australia could source 10 per cent of its energy from wave power by 2050.

- \$1.3 million – ARENA funding
- \$3.3 million – Total project value
- March 2015 – Unveiled

Renewable Energy Venture Capital Fund Programme (Southern Cross Renewable Energy Fund)

ARENA's Renewable Energy Venture Capital Fund (REVC) Programme was created to foster skills and management capability and to provide funding confidence to renewable energy projects in order to strengthen their chance of success.

ARENA's \$100 million investment commitment was matched by Softbank China Venture Capital, creating the \$200 million Southern Cross Renewable Energy Fund, which is managed by Southern Cross Venture Partners Pty Ltd.

[Information about investments made by the Southern Cross Renewable Energy Fund.](#)

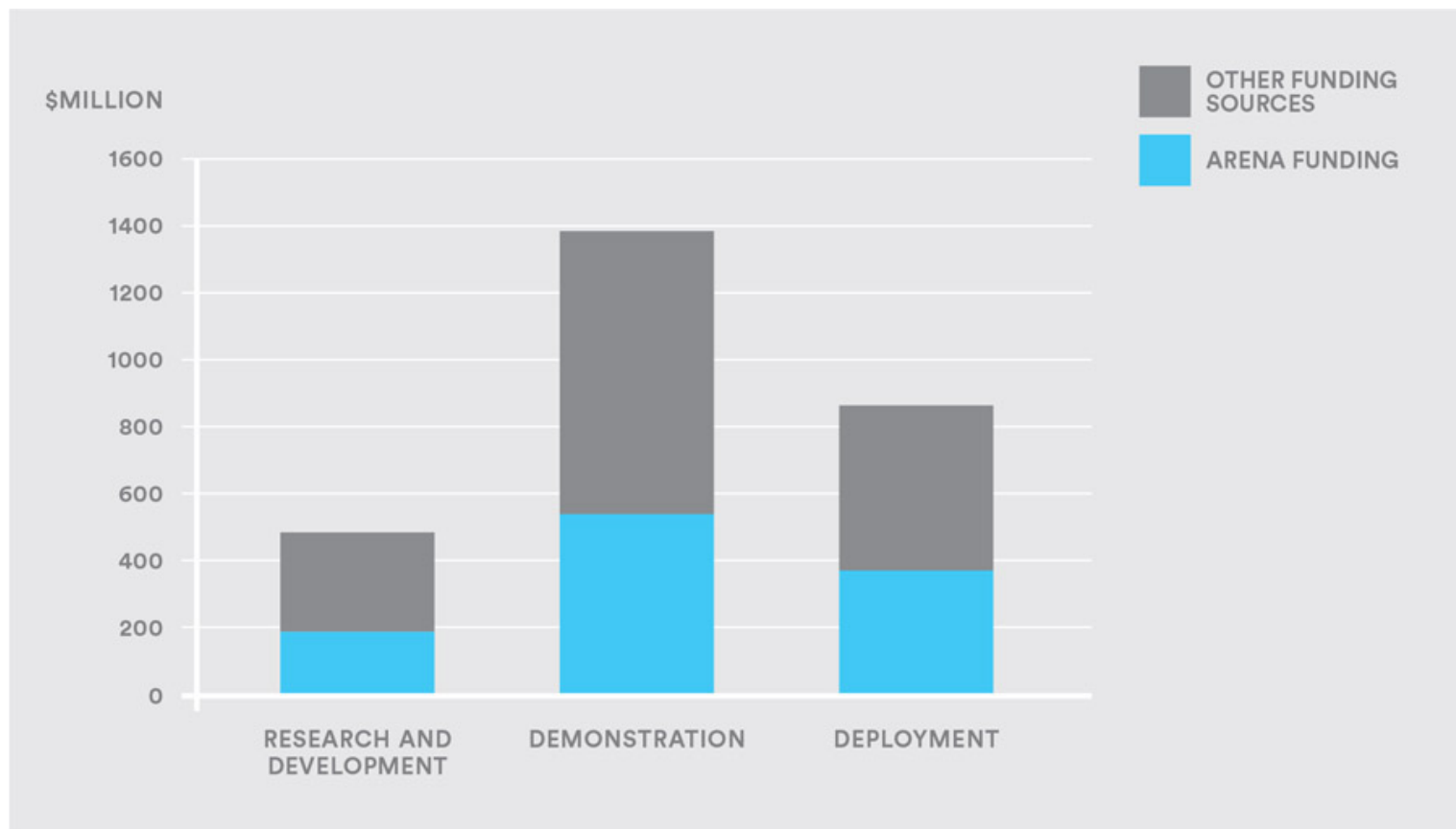
Advanced biofuels

Under the previous Australian Centre for Renewable Energy (ACRE), the Australian Government supported the development of advanced biofuels by launching the \$10 million Advanced Biofuels Investment Readiness (ABIR) programme and providing a \$5 million foundation grant to James Cook University for its High Energy Algal Fuels

project. ARENA subsequently assumed responsibility for these activities.

The ABIR programme supports the development of advanced biofuel technologies by seeking to progress the deployment of pre-commercial demonstration projects for the production of drop-in advanced biofuels in Australia. Almost \$10 million is committed to two advanced biofuels projects under the programme.

Figure 8: ARENA investment portfolio



Mapping network opportunities for renewable energy

By Institute for Sustainable Futures at University of Technology Sydney

Online maps of electricity network constraints to help better inform network investments and increase the use of renewable energy. The maps will be updated annually and made freely available online.

- \$425 thousand – ARENA funding
- \$1 million – Total project value

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Other reportable matters

Work health and safety

The *Work Health and Safety Act 2011* (WHS Act) aims to secure the health and safety of workers and workplaces through the elimination or minimisation of risks, so far as reasonably practicable.

The ARENA Board promotes a positive safety culture at ARENA through the proactive steps that it takes to exercise its due diligence obligations under the WHS Act.

ARENA is committed to taking active steps to protect the health and safety of all employees, contractors, visitors and third parties. The ARENA Board closely monitors health and safety in ARENA projects and in ARENA workplaces.

ARENA considers health and safety throughout the life cycle of the funding process. ARENA is supported in securing the health and safety of its staff during its day-to-day operations by arrangements put in place by the portfolio Department. Those arrangements incorporate:

- agreed responsibilities in maintaining a safe and healthy working environment for workers
- agreed WHS frameworks and consultative forums
- systems for identifying hazards and effectively managing risk
- measures for monitoring, evaluating and striving for continual improvement in WHS performance
- procedures for the reporting and resolution of WHS issues.

In respect of ARENA staff, no investigations were conducted nor notifiable incidents reported during 2014-15. Reporting in respect of Departmental staff made available to ARENA is covered in the Department of Industry and Science's Annual Report 2014-15.

Consultancies

The Board has voluntarily adopted key principles of the Commonwealth Procurement Rules for ARENA procurements. Section 63 of the ARENA Act states that consultants may be engaged by ARENA to provide technical and specialist advisory services to assist ARENA in the performance of its functions. ARENA must not engage consultants to perform operations or administrative duties of a kind that are performed, or are capable of being performed, by Departmental staff made available to ARENA.

In 2014-15, ARENA entered into 53 new consultancy arrangements, involving total actual expenditure of \$2,573,324 (inclusive of GST). In addition, 86 ongoing consultancies were active during 2014-15, involving total actual expenditure of \$3,793,607 (inclusive of GST).

ARENA's money should not to be applied to costs associated with Departmental staff made available to ARENA. Procurements undertaken by ARENA in relation to such Departmental staff are paid from Departmental funds and, as such, are subject to the Commonwealth Procurement Rules.

Ecologically sustainable development

Table 6 sets out ARENA's report against section 516A of the *Environment Protection and Biodiversity Conservation Act 1999*.

Corporate governance

ARENA places considerable emphasis on strong governance arrangements.

Table 6: Contribution to ecologically sustainable development 2014-15

Reporting criteria	Performance
Accordance with and contribution to ecologically sustainable development (ESD), including the development and implementation of policies, plans, programmes and	<p>ARENA is specifically tasked with facilitating research, development, demonstration and deployment of renewable energy technologies with a view to driving the commercialisation and reducing the cost of renewable energy. ARENA's policies, plans and programmes all accord with and contribute to the ESD principles by:</p> <ul style="list-style-type: none">• helping to foster the long-term sustainability of Australia's energy sector while promoting the reduction of energy-related greenhouse gas emissions• taking into account economic, environmental and social considerations when developing renewable energy

Information on ARENA's projects is provided on pages 64-75.

Environmental performance, including the impact of the agency's activities on the natural environment, how any impacts are mitigated and how they will be managed.

ARENA's accommodation and facilities arrangements are supported by the portfolio Department. The Department operates under the Energy Efficiency in Government Operations policy. Its purpose is to reduce the energy consumption of government operations, with particular emphasis on the energy efficiency of buildings. The Department also aims to improve its environmental management practices, reduce the impacts of its operations, and foster greater efficiencies and operational costs savings consistent with legislative, regulatory and policy requirements such as the Australian National Audit Office's Public Sector Environmental Management Better Practice Guide of April 2012. For more information, please refer to the Department of Industry and Science's Annual Report 2014–15. For the duration of 2014-15, ARENA's Canberra offices were located in the NewActon Nishi Building. The Nishi Building offices have a 6-star Green Star Design rating. NewActon Nishi is considered to be Canberra's most sustainable mixed-use building complex.

Ethics and risk management

In 2014-15 the ARENA Board continued to implement the conflict of interest policy that was adopted in 2012. The policy describes:

- the duties and obligations in respect of potential conflicts for all ARENA personnel, including
 - members of the Board
 - members of the Risk and Audit Committee (RAC) (and any other subcommittee of the Board)
 - the Chief Executive Officer and the Chief Financial Officer
 - all ARENA staff, including employees and contractors of the Department who are made available to ARENA
 - consultants engaged by ARENA, including probity advisers, expert due diligence advisers and other independent technical advisers
 - members of ARENA assessment advisory committees
- how individuals are to discharge their duties under the policy
- how declarations are managed.

ARENA is committed to integrating risk management practices into all processes and operations.

ARENA manages risk commensurate with ISO 31000:2009, Risk management – Principles and guidelines. Accountability and responsibility for ARENA's performance lies with the Board. This includes accountability for ARENA's management of risk. While the Board and ARENA executive are ultimately accountable for risk management, it is the responsibility of all ARENA personnel to manage risk.

ARENA's RAC provides independent assurance and advice to the Board on ARENA's risk management. In 2014-15, the RAC was provided with information on ARENA's approach to managing ARENA's major risks including those associated with individual programmes, projects and significant procurements. More information about the RAC is available on page 58.

ARENA service charter

ARENA aims to provide a high standard of service to all its stakeholders. ARENA focuses on achieving honest and ethical relationships with stakeholders, underpinned by genuine consultation and feedback.

ARENA provides high quality, evidence-based advice and decisions through informed judgment and prudent risk management. ARENA staff are bound by the Australian Public Service Values and Code of Conduct.

As ARENA continues to help drive the development and deployment of renewable energy in Australia, it anticipates an increase in the volume of contact with stakeholders. ARENA aims to continue to deliver professional and timely services to an expanded customer base.

Complaints and handling

ARENA has an established internal complaints and review process, which allows reviews of ARENA decisions and complaints about service quality to be resolved fairly and simply. For information on the complaints and review process see [Complaints](#).

Public Governance, Performance and Accountability Act 2013

On 1 July 2014, Commonwealth Government authorities administered under the *Commonwealth Authorities and Companies Act 1997* and the *Financial Management and Accountability Act 1997* became 'corporate Commonwealth entities' under the PGPA Act. Board Directors and staff of corporate Commonwealth entities have a range of new duties under the Act.

ARENA undertook the following to prepare for implementation of the PGPA Act:

- considered the new sources of authority in the PGPA Act and updated internal controls and internal delegations
- informed staff about the new legislative framework
- updated policies, plans and procedures.

Importantly, implementation of the PGPA framework will be ongoing, gradual and staged consistent with the approach adopted by the Department of Finance and the PGPA implementation work undertaken by the Department of Industry and Science.

Training and development

ARENA's commitment to quality, innovation and professionalism are core elements of the organisation's competitive advantage, and underpin ARENA as an employer of choice.

ARENA has a strong commitment to building the skills and expertise of its people. ARENA employees have participated in a wide range of training including postgraduate study, leadership training and secondment opportunities within the Department and other agencies. For example, during 2014-15, ARENA employees attended training from the Australian Energy Market Operator on the operation of the National Electricity Market.

All new employees receive an induction pack and training in their respective teams. New ARENA employees meet members of the executive and learn more about current activities in ARENA.

Topics covered in the induction material given to new ARENA employees include:

- introduction to ARENA
- overview of business functions including strategy, business development and contract negotiations, project management, strategic communication, knowledge management and business support functions
- Code of Conduct
- conflict of interest and probity
- work health and safety

- governance and compliance in ARENA
- employment, learning and development, and other mandatory departmental procedures.

Public interest disclosure

There were no disclosures under the *Public Interest Disclosure Act 2013* for 2014-15.

Fraud control

The ARENA Fraud Control Plan 2014-16 was approved by the Board in July 2014 and adherence to the Plan continues. The Plan outlines ARENA's key activities to ensure fraudulent activity is minimised.

ARENA participated in the annual fraud survey conducted by the Australian Institute of Criminology and the Attorney-General's Department. There were no known cases of fraud at ARENA during the year.

All of ARENA's employees are provided with fraud awareness training. Fraud awareness refresher training was also provided to staff during the year using a mandatory online training module.

Freedom of information and Information Publication Scheme

Australian Government entities that are subject to the *Freedom of Information Act 1982* (FOI Act) are required to publish information to the public as part of the Information Publication Scheme.

ARENA's publications covered by the scheme are accessible from the ARENA website at arena.gov.au. Consistent with its knowledge management agenda, ARENA publishes information relating to the renewable energy sector, including information from financial assistance recipients.

Information on how to make a request under the FOI Act is available on the Department of Industry and Science's website. Contact details are:

FOI Coordinator
Legal Branch
Department of Industry and Science
GPO Box 9839
CANBERRA ACT 2601

Email: FOI@industry.gov.au
Phone: +61 2 6102 8104

Two requests for information under the FOI Act were received by ARENA in 2014–15.

Indemnities and insurance premiums of officers

ARENA's insurance cover was included under the portfolio Department's policy for 2014-15.

Internal audit and quality assurance

The ARENA Risk and Audit Committee provides independent advice to the Board on ARENA's financial reporting, performance reporting, system of risk oversight and management and system of internal control. The committee also provides a forum for communication between the Board and the internal auditor (Synergy) as well as the external auditor (Australian National Audit Office).

Judicial decisions and reviews by outside bodies

In 2014-15, ARENA was not affected by judicial decisions or reviews by administrative tribunals, the Auditor-General, the Commonwealth Ombudsman or the Office of the Australian Information Commissioner. The Senate Economics and Legislation Committee reviewed the ARENA Repeal Bill.

ARENA received an unqualified audit report on its financial statements for 2014-15. The Auditor-General's independent report is presented in the financial statements section of this annual report.

Key activities and changes affecting ARENA

See page 18 for key activities and potential changes affecting ARENA.

Legal expenditure

During 2014–15, ARENA incurred \$2,267,621 (excluding GST) in external legal service expenditure.

ARENA has reported the expenditure to the Office of Legal Services Coordination as required under the Legal Services Directions 2005.

Related entity transactions

Details of related entity transactions are covered in Note 13 of the financial statements section of this report.

Subsidiaries

ARENA did not have any subsidiaries during 2014-15.

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Appendix 1: Appointments

ARENA Board

Section 17 of the *Australian Renewable Energy Agency Act 2011* (ARENA Act) provides that there is to be a Board of ARENA.

Responsibilities

The ARENA Board is a skills-based board. The functions of the Board involve:

- developing general funding strategies, financial assistance guidelines and work plans (Division 2 of Part 3 of the ARENA Act)
- determining other strategies, objectives and policies to be followed by ARENA
- ensuring that ARENA complies with the ARENA Act.

Pursuant to sections 71(1) and 72(1) of the ARENA Act, ARENA and the ARENA Board may delegate to the CEO specific powers or functions, subject to any directions specified by the Board and any applicable ARENA policies and legislation.

Membership

Section 29 of the ARENA Act provides that the Board consists of:

- up to six members, appointed on a part-time basis by the portfolio Minister
- the Secretary of the Department.

A person is eligible for appointment if the Minister is satisfied that the person has experience or knowledge in at least one of the following fields:

- renewable energy technology
- commercialisation
- business investment
- corporate governance.

Appointed Board members are initially appointed for a term of up to two years, and may be reappointed for a total of up to six continuous years.

Figure 9: ARENA Board membership 2014-15

Greg Bourne

Chair / Non-executive director

Appointed:
July 2012

Term expiring:
January 2016

Mr Bourne studied chemistry at the University of Western Australia via a scholarship from BP Refinery (Kwinana). After graduating with honours in 1971, he carried out research into refinery processes before joining BP Exploration. As a drilling engineer, he worked and lived in the United Kingdom, North America, South America, the Middle East, China and Australia.

In 1988, Mr Bourne was seconded to the Prime Minister's Policy Unit in the United Kingdom, where he was the Special Adviser on Energy and Transport. Mr Bourne returned to Australia in 1992 to be in charge of BP Exploration's activities in Australia's North West Shelf region and Papua New Guinea.

After working overseas as Director, BP Scotland, and then Regional Director, Latin America, based in Caracas, he returned to Australia in 1999 to become Regional President, BP Australasia, the position from which he retired from BP in 2003.

In 2004, Mr Bourne was appointed Chief Executive Officer of WWF Australia, a position he held until 2010. Mr Bourne is a member of a number of government and business advisory groups primarily concerned with energy, climate change and sustainability.

He was awarded the Centenary Medal for services to the environment and an Honorary Doctorate from the University of Western Australia for services to international business.

Glenys Beauchamp

Ex-officio director

Commenced:
September 2013

Ms Beauchamp was appointed Secretary of the Department of Industry and Science on 18 September 2013. She has had an extensive career in the Australian Public Service at senior levels with responsibility for a number of significant government programmes. Ms Beauchamp has more than 25 years' experience in the public sector and began her career as a graduate in the Industry Commission.

Prior to her current role, Ms Beauchamp was Secretary of the Department of Regional Australia, Local Government, Arts and Sport. She has served as Deputy Secretary of the Department of the Prime Minister and Cabinet, and the Department of Families, Housing, Community Services and Indigenous Affairs.

Ms Beauchamp has held a number of executive positions in the Australian Capital Territory Government, including Deputy Chief Executive of the Department of Disability, Housing and Community Services, and Deputy Chief Executive Officer of the Department of Health.

In 2010, Ms Beauchamp was awarded a Public Service Medal for coordinating Australian Government support during the 2009 Victorian bushfires.

Ms Beauchamp has an economics degree from the Australian National University and an MBA from the University of Canberra.

Until 2013, Ms Smith was the Head of Private Equity, Industry Funds Management (IFM) (now known as IFM Investors), and Chair of the IFM Risk Committee. She was also Deputy Chair of the IFM Investments and Strategy Committee. Post retirement from the firm she remains a member of the IFM Investors Investment Committee. Prior to joining IFM, Ms Smith held various investment management roles.

Judith Smith

Non-executive director

Appointed:
July 2012

Term expiring:
January 2016

During more than a decade at National Mutual Funds Management, she managed Australian equity portfolios (including large capitalisation portfolios, specialist small company portfolios and private equity investments) and Australian equity research and strategy. Ms Smith has been involved with private equity in the Australian market since 1990. She was a board member of Australian Private Equity and Venture Capital Association Limited, and participated on a number of fund advisory boards. At IFM she ran a multi-billion dollar private equity portfolio with Australian and global investments.

Ms Smith is on the board of the Acorn Capital Investment Fund, LUCRF and Universal BioSenses Inc.

Ms Smith holds a Master of Applied Finance from the University of Melbourne and a Bachelor of Economics (Honours) from Monash University. She is a Fellow of the Financial Services Institute of Australasia and Graduate of the Australian Institute of Company Directors.

Mr Broad has more than 25 years' experience in senior executive roles in the rail, civil and construction industries in Australia. He has extensive experience in company management, leadership, stakeholder engagement and business development within dynamic marketplaces, with recent expertise in growing customer and partner relationships as well as business strategic planning.

Danny Broad

Non-executive director

Appointed:
November 2014

Term expiring:
January 2016

Mr Broad's career developed from commencing as a civil/structural design engineer, through project management, construction management and operations management to company management. He project managed the construction of the coal handling plant at Tarong Power Station, the construction of the coal wash plant at Meandu Mine in Queensland, the Australia Telescope Project in Narrabri and the construction of the steel structure of Chifley Tower in Sydney.

In 1997, Mr Broad was appointed as Group General Manager of Walkers Maryborough and moved to Sydney in 2000 to merge the Walkers business and Clyde Engineering into EDI Rail. Following the acquisition by Downer, Mr Broad has held various senior executive roles in Downer Rail. He recently joined engineering consulting group Ranbury in Brisbane in an executive role.

Mr Broad has a Bachelor of Engineering (Civil) from the University of Queensland, a Graduate Diploma in Business Administration from the Queensland University of Technology and has held board roles on the Australasian Railway Association board and the NSW council of the Australian Industry Group.

Martin Hoffman	Mr Hoffman has been the Deputy Secretary of the Department of Industry and Science (and its predecessors) since 2010, with particular responsibilities for the resources and energy sector. He joined the Australian Public Service in March 2009 in the Department of the Prime Minister and Cabinet.
Non-executive director	
Appointed: July 2014	Mr Hoffman previously had a lengthy private sector career primarily in digital media and technology, including as CEO of NineMSN, Australia’s largest internet media company.
Term expired: July 2015	Mr Hoffman holds an MBA (Hons) from IMD in Lausanne, Switzerland, Master of Applied Finance (Macquarie), and Bachelor of Economics (Sydney). He completed the Executive Fellows programme at the Australia New Zealand School of Government in 2009, and was awarded the James Wolfensohn Public Service Scholarship to study at the Harvard Kennedy School in 2013.

Meetings

The Board formally met eight times during 2014-15.

Reporting

Following each Board meeting, the Chair provided the Minister with a report on the key outcomes of that meeting.

Subcommittees

The Board has established a Risk and Audit Committee (RAC), in compliance with section 45 of the PGPA Act and as authorised by section 48 of the ARENA Act.

ARENA Risk and Audit Committee

The RAC provides independent assurance and advice to the Board on ARENA’s risk, control and compliance, internal audit and its external accountability responsibilities including its financial statement responsibilities.

The Board has authorised the RAC, within the scope of its responsibilities, to:

- obtain any information that it requires from any employee or external party (subject to any legal obligation to protect information)
- discuss any matters with the external auditor or other external parties (subject to confidentiality considerations)
- request the attendance of any Board member or ARENA staff member, including the CEO, at RAC meetings
- obtain legal or other professional advice, as considered necessary to meet its responsibilities, at ARENA’s expense and in accordance with ARENA’s procurement policy.

Table 7: ARENA Board meetings 2014-15

Date	Meeting	Location	Attendance <i>(In person & via teleconference)</i>
			All Board members
9 July 2014	23rd Board meeting	Canberra, ACT	Secretary’s alternate for part of meeting: Mr Greg Divall (Secretary attended part

meeting)

9 September 2014	24th Board meeting	Canberra, ACT	All Board members
9 October 2014	25th Board meeting	Perth, WA	All Board members
4 December 2014	26th Board meeting	Canberra, ACT	All Board members
18 February 2015	27th Board meeting	Canberra, ACT	All Board members
31 March 2015	28th Board meeting	Canberra, ACT	All Board members
			All Board members
7 May 2015	29th Board meeting	Canberra, ACT	<i>Secretary's alternate for part of meeting: Mr Chris Locke (Secretary attended part meeting)</i>
			All Board members
25 June 2015	30th Board meeting	Canberra, ACT	<i>Secretary's alternate: Mr Chris Locke</i>

Responsibilities

RAC members are expected to understand and observe the legal requirements of the PGPA Act and PGPA Rules. Members are also expected to:

- act in the interests of ARENA
- apply good analytical skills, objectivity and good judgment
- express opinions constructively and openly
- raise issues that relate to the committee's responsibilities and pursue independent lines of enquiry.

Membership

In 2014-15 the RAC was made up of two Board members and two independent members. The RAC members were:

- Ms Judith Smith (RAC Chair and Board member)
- Mr Martin Hoffman (Board member)
- Ms Jenny Morison
- Mr Peter Thomas.

Meetings

The RAC formally met three times during 2014-15.

Reporting

Following each RAC meeting, the RAC Chair provided the Board with a report on the key outcomes of that meeting.

Subcommittees

No subcommittees were established under the RAC.

Table 8: ARENA Risk and Audit Committee meetings 2014-15

Date	Meeting	Location	Attendance (In person & via teleconference)
15 September 2014	9th RAC meeting	Canberra, ACT	All members
5 March 2015	10th RAC meeting	Canberra, ACT	Judith Smith, Jenny Morison, Peter Thomas Apology: Martin Hoffman
27 May 2015	11th RAC meeting	Canberra, ACT	Judith Smith, Jenny Morison Apology: Peter Thomas, Martin Hoffman

ARENA Chief Executive Officer

Section 50 of the ARENA Act provides that there is to be a Chief Executive Officer (CEO) of ARENA. Under section 52 of the ARENA Act, the CEO is appointed by the portfolio Minister on the recommendation of the Board for a period of up to three years. A CEO is eligible for re-appointment.

The CEO has responsibility for the day-to-day business of ARENA, including:

- executing directions of the Board
- overseeing administration of existing projects
- supporting the Board to develop and execute its funding strategy, forward work plan and initiatives
- representing ARENA at public events and managing stakeholder engagement
- analysing and sharing knowledge and information about renewable energy technologies
- developing advice to the Minister on renewable energy technology innovation.
- Mr Ivor Frischknecht continued as CEO of ARENA for 2014-15.

ARENA Chief Financial Officer

Section 61 of the ARENA Act provides that ARENA may employ a person to perform Chief Financial Officer (CFO) functions. The CFO for 2014-15 was Mr Ian Kay.

Figure 10: ARENA Chief Executive Officer 2014-15

Ivor Frischknecht	Mr Frischknecht is a former Investment Director of Starfish Ventures Pty Ltd, a venture capital firm that manages \$400 million, primarily on behalf of Australian superannuation funds. He was responsible for the firm's clean tech investment activities in areas such as alternative energy, water and environmental technologies.
Appointed: 6 August 2012	Mr Frischknecht was previously Director, New Ventures, of Idealab, a company involved in developing and investing in technology start-up companies, including renewable energy companies. He was also previously the CEO or other senior executive of a number of venture funded energy and technology companies.
Term expiring: 5 August 2018	Mr Frischknecht started his career with the strategy consulting firm Bain & Co. He holds a Bachelor of Laws and Bachelor of Economics (Honours) from the University of Sydney, and a Master of Business Administration and Public Management Certificate from the Stanford University Graduate School of Business.

Appendix 2: Financial assistance

Section 70(c) of the ARENA Act requires ARENA to publish details of financial assistance agreements and progress. In addition, section 28 of the *Australian Renewable Energy Agency (Consequential Amendments and Transitional Provisions) Act 2011* requires ARENA to report details of people to whom financial assistance is provided under a transferred Commonwealth funding agreement or ASI Limited agreement.

Table 9: Financial assistance 2014-15

Research and Development

Proponent name	Project description	Location	**Funding provided/ committed (GST exclusive)	Primary technology
*ANU	Advanced surface and contact technologies for industrial silicon photovoltaics	ACT	\$4,102,000	Solar PV
*ANU	Bladed receivers with active airflow control	ACT	\$1,361,327	Solar thermal
*ANU	Eliminating material quality barriers to low cost, very high efficiency silicon solar cells and modules	ACT	\$2,023,407	Solar PV
ANU	High quality laser doping for solar cells through improved characterisation	ACT	\$446,582	Solar PV
*ANU	High-temperature solar thermal energy storage via manganese-oxide based redox cycling	ACT	\$1,193,534	Solar thermal
ANU	Improved high-temperature receivers for dish concentrators	ACT	\$1,486,210	Solar thermal
ANU	Industry ready n-type silicon solar cells	ACT	\$3,335,254	Solar PV
ANU	Local doping using Laser Chemical Processing (LCP)	ACT	\$352,365	Solar PV
ANU	Machine-learning-based forecasting of distributed solar energy	ACT	\$799,522	Enabling
ANU	Next generation SLIVER solar cells	ACT	\$4,953,473	Solar PV
*ANU	PV Modules for the Australian environment (PV-MATE)	ACT	\$502,977	Solar PV
Barbara Hardy Institute	Development of high temperature phase change storage system and test facility	SA	\$689,500	Enabling
CSIRO	A novel thermoelectric topping cycle receiver for CST applications	NSW	\$2,200,912	Solar thermal
CSIRO	Advanced solar thermal energy storage	NSW	\$3,538,846	Solar thermal
CSIRO	Advanced steam-generating receivers	NSW	\$2,821,976	Solar thermal
CSIRO	Australian Solar Thermal Research Initiative (ASTRI)	NSW	\$35,000,500	Solar thermal

CSIRO	Development of combined cycle using solar reformed gas	NSW	\$351,453	Solar thermal
*CSIRO	High efficiency solar Allam cycle	NSW	\$2,749,748	Solar thermal
*CSIRO	Novel concepts for low cost small heliostats in remote installations	NSW	\$1,000,000	Solar thermal
CSIRO	Optimisation of central receivers for advanced power cycles	NSW	\$1,150,880	Solar thermal
CSIRO	Plug and Play Solar Power: Integration of solar in hybrids	NSW	\$1,292,725	Enabling
CSIRO	Solar Energy Management (SEM) system for utilities	QLD	\$225,715	Enabling
CSIRO	Solar Hybrid Fuels	NSW	\$1,637,853	Solar thermal
CSIRO	Solar-driven supercritical CO ² Brayton Cycle	NSW	\$2,496,835	Solar thermal
*CSIRO	Virtual Power Station 2	NSW	\$850,000	Enabling
*IT Power	Testing the performance of lithium-ion batteries	ACT	\$450,000	Enabling
RayGen Resources	Central receiver CPV pilot project – Stage 2	VIC	\$1,750,000	Solar PV
RMIT	MUSIC: Micro-urban solar integrated concentrators	VIC	\$4,521,191	Solar thermal
Solar Systems	High-efficiency multi-junction solar cells on low-cost, large-area	NSW	\$2,000,000	Solar PV
Suntech	Novel texture processes for the latest industrial wafer	NSW	\$475,000	Solar PV
Sydney University	Up conversion of the solar spectrum for improved PV energy conversion	NSW	\$487,584	Solar PV
University of NSW/ Suntech	Next generation crystalline silicon on glass	NSW	\$1,178,000	Solar PV
University of Melbourne	Enhancing efficiencies in printed solar cells	VIC	\$500,000	Solar PV
University of Melbourne	Printing solar cells – A manufacturing proposition for Australia	VIC	\$1,762,500	Solar PV
University of South Australia	New photocathodes for solar hydrogen production	SA	\$500,000	Solar thermal
*University of Technology Sydney	Develop lithium-sulfur batteries for large-scale electrical energy storage	NSW	\$750,000	Enabling
UNSW	40% Efficient photovoltaic “Power Cube” power tower receiver	NSW	\$1,000,000	Solar PV
*UNSW	Advanced recombination-based loss analysis methods for silicon wafer and silicon solar cells	NSW	\$381,328	Solar PV
UNSW	Australia-US Institute for Advanced Photovoltaics (ACAP)	NSW	\$33,174,000	Solar PV

UNSW	Cost-effective GaAsP top solar cell on high performance		NSW	\$2,480,000	Solar PV
UNSW	Develop and commercialise high efficiency silicon solar cell tech		NSW	\$3,972,980	Solar PV
*UNSW	High-efficiency silicon/perovskite tandem cells and modules: Demonstration and commercial evaluation		NSW	\$3,599,459	Solar PV
UNSW	Low-cost, high-efficiency Copper-Zinc-Tin-Sulphide (CZTS) silicon		NSW	\$1,511,828	Solar PV
UNSW	Multi-Junction c-Si solar cells based on virtual Ge substrates		NSW	\$1,265,000	Solar PV
UNSW	Overcoming performance limitations of commercial solar cells		NSW	\$4,400,000	Solar PV
UNSW	Si nanocrystals embedded in silicon oxide and nitride		NSW	\$500,000	Solar PV
UNSW	Tandem Quantum Dot Solar Cells		NSW	\$1,375,000	Solar PV
UNSW	The Hot Carrier Solar Cell		NSW	\$563,906	Solar PV
UNSW	Time-and-spectrally resolved Photoluminescents for silicon solar		NSW	\$490,166	Solar PV
UNSW	Tools for design and scale-up of solar thermo-chemical reactors		NSW	\$1,083,320	Solar thermal
*UNSW	Towards ultimate performance commercial silicon solar cells		NSW	\$2,970,702	Solar PV
Vast Solar P/L	Validation of performance modelling for 1.2MWth solar array		NSW	\$437,243	Solar thermal
Total	52			\$150,142,801	

International Research Exchange

University/ Institution	Scholar	Type of funding	**Funding provided/ committed (GST exclusive)	Primary technology
CSIRO	Benjamin Duck	International Research Exchange	\$109,081	Solar
Total	1		\$109,081	

Research and Development: Postgraduate scholarships and fellowships

University/ Institution	Scholar	Type of funding	**Funding provided/ committed (GST exclusive)	Primary technology
ANU	Andreas Fell	Fellowship	\$420,271	Solar
ANU	Andrew Thomson	Fellowship	\$347,054	Solar
ANU	Elizabeth Thomsen	Fellowship	\$357,993	Solar
ANU	Fiacre Rougieux	Fellowship	\$338,351	Solar

ANU	James Bullock	Scholarship	\$49,402	Solar
ANU	Jose Zapata	Fellowship	\$359,654	Solar
ANU	Katherine Booker	Fellowship	\$356,749	Solar
ANU	Keith Sue	Scholarship	\$120,000	Solar
ANU	Ngwe Soe Josh Zin	Fellowship	\$378,154	Solar
ANU	Nicholas Grant	Fellowship	\$355,525	Solar
ANU	Niraj Lal	Fellowship	\$325,585	Solar
ANU	Qunyu Bi	Fellowship	\$356,749	Solar
ANU	Xinbo Yang	Fellowship	\$370,622	Solar
Charles Darwin	Wai Kean Yap	Fellowship	\$333,049	Solar
CSIRO	Hasitha Weerasinghe	Fellowship	\$332,039	Solar
CSIRO	Kallista Sears	Fellowship	\$301,530	Solar
CSIRO	Krishna Feron	Fellowship	\$333,081	Solar
CSIRO	Tianshi Qin	Fellowship	\$329,231	Solar
CSIRO	Timothy Jones	Fellowship	\$329,231	Solar
Monash	Alex Pascoe	Scholarship	\$49,426	Solar
Murdoch	Tobias Prosin	Scholarship	\$120,000	Solar
RMIT	Ahmad Mojiri	Scholarship	\$39,816	Solar
Swinburne University	Ben Ekman	Scholarship	\$96,667	Solar
Swinburne University	Benjamin Mashford	Fellowship	\$347,055	Solar
Sydney University	Bjorn Sturmberg	Scholarship	\$48,455	Solar
Sydney University	Miroslav Dvorak	Fellowship	\$352,321	Solar
University of Wollongong	Andrew Nattestad	Fellowship	\$374,511	Solar
University of Adelaide	Martin Belusko	Fellowship	\$394,585	Solar
University of Adelaide	Philip van Eyk	Fellowship	\$273,856	Solar
University of Melbourne	Kyra Schwarz	Scholarship	\$52,941	Solar
University of Melbourne	Shuhua Peng	Fellowship	\$324,612	Solar
University of Melbourne	Viktoras Dryza	Fellowship	\$339,446	Solar
University of Newcastle	Natalie Holmes	Scholarship	\$36,178	Solar
University of Queensland	Ajay K Pandey	Fellowship	\$349,864	Solar
University of Queensland	Yuan Fang	Fellowship	\$349,864	Solar
University of South				

Australia	Ming Liu	Fellowship	\$278,136	Solar
University of South Australia	Nguan Hwee Steven Tay	Fellowship	\$289,930	Solar
University of Western Sydney	Guodong Du	Fellowship	\$107,256	Solar
University of Western Sydney	Wenxian Li	Fellowship	\$284,482	Solar
UNSW	Nicholas Boerema	Scholarship	\$19,678	Solar
UNSW	Alexander To	Scholarship	\$46,041	Solar
UNSW	Bernard Mitchell	Fellowship	\$330,195	Solar
UNSW	Binesh Puthen Veettil	Fellowship	\$330,195	Solar
UNSW	Chao Shen	Scholarship	\$37,968	Solar
UNSW	Clare Disney	Scholarship	\$106,667	Solar
UNSW	Craig Johnson	Fellowship	\$216,241	Solar
UNSW	Gough Lui	Scholarship	\$27,816	Solar
UNSW	Hangtao Cui Bi	Fellowship	\$330,195	Solar
UNSW	Henner Kampwerth	Fellowship	\$403,315	Solar
UNSW	Jae Sung Yun	Scholarship	\$53,334	Solar
UNSW	Jianshu Han/Allen Barnett	Scholarship	\$80,000	Solar
UNSW	Matthew Edwards	Fellowship	\$422,138	Solar
UNSW	Murad Tayebjee	Fellowship	\$330,195	Solar
UNSW	Robert Patterson	Fellowship	\$327,240	Solar
UNSW	Sammy Lee	Fellowship	\$330,195	Solar
UNSW	Sisi Wang	Scholarship	\$31,041	Solar
UNSW	Supriya Pillai	Fellowship	\$370,288	Solar
UNSW	Thilini Ishwara	Fellowship	\$356,965	Solar
UNSW	Vincent Allen	Scholarship	\$120,000	Solar
UNSW	Xi Wang	Fellowship	\$396,843	Solar
UNSW	Xiaojing Hao	Fellowship	\$315,015	Solar
UNSW	Yang Yang	Fellowship	\$330,195	Solar
UNSW	Zi Ouyang	Fellowship	\$391,717	Solar
Total	63		\$16,307,148	

Demonstration

Proponent name	Project description	Location	**Funding provided/ committed (GST exclusive)	Primary technology
Abengoa Solar Power	Perenjori Dispatchable Solar			Solar

Australia Pty Ltd	Thermal Power Project	WA	\$449,718	thermal
*AGL	Energy storage for commercial renewable integration in South Australia	SA	\$445,847	Enabling
Alinta Energy	Port Augusta Solar Thermal Generation Measure	SA	\$1,000,000	Hybrid
*Australian PV Institute	Asia-Pacific Solar Research Conference 2014	NSW	\$50,000	Enabling
Australian PV Institute	Active participation in distributed energy market	NSW	\$173,550	Enabling
Australian PV Institute	Climate-based PV module rating scheme	NSW	\$268,320	Enabling
Australian PV Institute	Development of an interactive Australian Solar Map	NSW	\$443,238	Enabling
*Balfour Beatty	Project Harvest: 31.5MW biomass power plant	VIC	\$28,000,000	Bioenergy
*Barcaldine	Barcaldine remote community solar farm project	QLD	\$27,800,000	Solar PV
*Bioenergy Australia	Participation and management of tasks for the IEA Bioenergy Taskforce	NSW	\$360,000	Bioenergy
BioPower Systems P/L	bioWAVE ocean pilot at Port Fairy	VIC	\$11,000,000	Ocean
*Biosystems Engineering	Full-scale woody crop harvester prototype and commercial biomass supply chain demonstration	NSW	\$1,940,000	Bioenergy
BlueScope Steel	Expanding the value proposition for Building Integrated PV	NSW	\$477,320	Solar PV
Brisbane Materials Technology	A pilot-scale plant for the production of solar anti-reflection coatings	QLD	\$1,262,000	Solar PV
C2K	Feasibility study for an off-grid renewable energy island in the Pilbara	WA	\$300,000	Bioenergy
Carnegie Wave Energy Ltd	Perth Wave Energy Project – CETO6 expansion	WA	\$13,000,000	Ocean
Carnegie Wave Energy Ltd	Perth Wave Energy Project	WA	\$13,095,381	Ocean
CAT Projects	Analysis of variations in instantaneous weather effects across the geographic boundaries of an electricity grid	NT	\$242,625	Enabling
*CITIC Pacific Mining Pty Ltd	Eramurra Village Solar Photovoltaic Project	WA	\$1,920,000	Solar PV
*Clean Energy Council	Clean Energy Australia: annual renewable energy industry analysis	VIC	\$129,100	Enabling

*Clean Energy Council	Future Proofing Australia's Electricity Industry – Stage 2	VIC	\$425,050	Enabling
Clean Energy Council	Future Proofing Australia's Electricity Industry – Stage 1	VIC	\$452,850	Enabling
CSIRO	Integrated solar radiation data sources over Australia	ACT	\$712,581	Enabling
CSIRO	Improving translation models for predicting energy yield of PV	NSW	\$1,318,721	Enabling
*CSIRO	The Australian Wave Energy Atlas	WA	\$1,352,755	Ocean
CSIRO	Australian Solar Energy Forecasting System (ASEFS) – Phase 1	ACT	\$3,089,000	Enabling
*Energy Developments Ltd (EDL)	5MW renewable diesel hybrid	SA	\$18,500,000	Hybrid
*Ergon Energy	Doomadgee Solar Farm Project	QLD	\$4,649,998	Hybrid
First Solar	Weipa Solar PV Project	QLD	\$11,300,000	Solar PV
*First Solar/CuDECO	CuDECO / Rocklands Solar Farm	QLD	\$13,000,000	Solar PV
*Frontier Carbon	Toolkit for renewable energy funding and financing	VIC	\$296,000	Enabling
*Fulcrum 3D	Cloud detection and prediction for maximising solar PV utilisation in off-grid hybrid power systems	NSW	\$452,000	Enabling
*Hydro Tasmania	Rottnest Island: Addressing the Energy and Water Nexus	WA	\$4,800,000	Hybrid
*Hydro Tasmania	Flinders Island Renewable Energy Integration Project	TAS	\$5,500,000	Hybrid
Ipsos Institute	Social license to operate large-scale solar	NSW	\$153,388	Enabling
James Cook University	High energy algal fuels project	QLD	\$5,000,000	Bioenergy
*Jemalong JSS	30MW utility scale solar thermal energy storage	NSW	\$39,500,000	Solar thermal
*Degruessa Solar Project Pty Ltd	10.5MW off-grid solar PV/storage project	WA	\$20,900,000	Solar PV
*Karratha Solar Power	Karratha Airport Solar Project	WA	\$2,300,000	Solar PV
Laing O'Rourke Australia Pty Ltd	Redeployable hybrid power generation	NSW	\$410,329	Hybrid
*Laing O'Rourke Australia Pty Ltd	Redeployable solar first deployment	NSW	\$451,986	Hybrid
Licella P/L	Biomass to Bio-Crude: Producing Advanced Drop-in Fuels for Australia	NSW	\$4,864,414	Bioenergy

*Lord Howe Island Board	Lord Howe Island Renewable Project	NSW	\$4,500,000	Hybrid
*Monash University	Australia's prosperity in a low carbon world: UN SDSN 2050 Deep Decarbonisation Pathways Project	VIC	\$305,893	Enabling
Muradel P/L	Advancing established marine microalgae biofuel to commercialisation	SA	\$4,415,500	Bioenergy
National ICT Australia	Data fusion and machine learning for geo exploration and characterisation	NSW	\$1,902,000	Geothermal
*National ICT Australia	Australian Renewable Energy Mapping Infrastructure (AREMI)	NSW	\$2,099,350	Enabling
Power and Water Corp	Daly River Load Optimisation	NT	\$500,000	Enabling
*Power and Water Corp	Solar Energy Transformation Project	NT	\$35,000,000	Hybrid
RATCH-Australia Corp Ltd	Feasibility of converting Collinsville Coal Power Station to solar thermal	QLD	\$2,150,682	Solar thermal
*Regional Development Australia ACT	Renewable energy region of collaborative industry and research excellence in the south-east region of NSW	ACT	\$305,000	Enabling
*Renergi Pty Ltd	A low emission biofuel technology	WA	\$5,173,000	Bioenergy
*Reposit Power	A commercially viable application of electricity storage for Australia's national electricity grid	ACT	\$445,666	Enabling
Smart Storage P/L (Ecuilt)	UltraBattery distributed Solar PV support and UltraBattery for RAPS	NSW	\$583,780	Enabling
Southern Cross Venture Partners	Southern Cross Renewable Energy Fund	–	\$100,000,000	REVC
*Swinburne University	Towards an Australian capability in arrays of ocean wave-power machines	VIC	\$770,728	Ocean
*Synergy	Alkimos Beach Energy Storage	WA	\$3,310,000	Enabling
University of Adelaide	Reservoir quality in sedimentary geothermal resources	SA	\$1,250,000	Geothermal
*University of Adelaide	Establishing the Australian Energy Storage Knowledge Bank	SA	\$1,441,811	Enabling
University of Melbourne	Achieving cost-effective abatement from Australian electricity generation	VIC	\$931,207	Enabling
University of	Community Energy Strategy: catalysing community renewables	NSW	\$330,280	Enabling

Technology Sydney	in Australia			
*University of Technology Sydney	Using DANCE model, extend maps of network constraints, planned investment and the potential value of distributed energy in electricity networks across the NEM	NSW	\$425,000	Enabling
*University of Technology Sydney	Facilitating local use of system charging and virtual net metering	NSW	\$250,000	Enabling
University of NSW	Forecasting and characterising grid-connected solar energy	NSW	\$470,284	Enabling
Vast Solar P/L	Vast Solar 6MWth grid-connected multi-module CST plant with thermal storage	NSW	\$5,896,960	Solar thermal
*Voyages Indigenous Tourism Australia	Yulara 1.8 MW Dispersed PV	NT	\$447,525	Solar PV
Waratah Power P/L	Developing fish friendly design criteria for small hydro facilities	NSW	\$613,377	Enabling
Total	67		\$415,304,214	

Deployment

Proponent name	Project description	Location	**Funding provided/ committed (GST exclusive)	Primary technology
AGL	Fixed angle PV power stations at Broken Hill (53MW) and Nyngan (102MW)	NSW	\$166,699,000	Solar PV
*Greenough River Solar Farm	Greenough River Solar Farm Stage 2	WA	\$30,000,000	Solar PV
*Gullen Solar	Gullen Range Solar Farm	NSW	\$12,400,000	Solar PV
Moree Solar Farm	Design, construction and build 56MWAC PV	NSW	\$101,700,000	Solar PV
Total	4		\$310,799,000	

*ARENA entered into these agreements for the provision of financial assistance during the year. These agreements will each contribute to the continued progress of ARENA's principal objectives and priorities under its GFS, including by improving the competitiveness of renewable energy technologies and by increasing the supply of renewable energy in Australia.**Funds committed to ongoing projects or total funds paid to complete or discontinued projects.

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Statement of Comprehensive Income for the period ended 30 June 2015

		2015	2014
	Notes	\$'000	\$'000
NET COST OF SERVICES			
Expenses			
Employee benefits	3A	909	884

Suppliers	3B	19,318	24,375
Grants	3C	216,204	239,339
Depreciation and amortisation	7C	86	54
Write down and impairment of property, plant and equipment		-	9
Total expenses		236,517	264,661

Own-Source Income			
Own-source revenue			
Interest received	4A	145	25
Return of grant		5,099	—
Resources received free of charge from Portfolio Department		10,363	14,282
Total own-source revenue		15,607	14,307

Gains			
Other Gains	4B	214	—
Total gains		214	—
Total own-source income		15,821	14,307
Net cost of services		220,696	250,354
Revenue from Government			
Payment from Portfolio Department		244,424	261,942
Surplus on continuing operations		23,728	11,588

OTHER COMPREHENSIVE INCOME

Item not subject to subsequent reclassification to net cost of services.			
Decrease in the value of investment	3D	860	1,915
Total comprehensive income		22,868	9,673

The above statement should be read in conjunction with the accompanying notes.

Statement of Financial Position as at 30 June 2015

		2015	2014
	Notes	\$'000	\$'000
ASSETS			
Financial Assets			
Cash and cash equivalents	10	469	26

Trade and other receivables	5A	4,067	6,407
Other investments	5B,6	13,058	11,131
Total financial assets		17,594	17,564
Non-Financial Assets			
Property, plant and equipment	7A,C	5	6
Intangibles	7B,C	718	798
Prepayments		20,934	36
Total non-financial assets		21,657	840
Total assets		39,251	18,404
LIABILITIES			
Payables			
Suppliers	8A	1,036	2,114
Grants	8B	3,186	4,197
Accrued Expenses		55	49
Total payables		4,277	6,360
Provisions			
Employee provisions	9A	136	74
Total provisions		136	74
Total liabilities		4,413	6,434
Net assets		34,838	11,970
EQUITY			
Retained surplus		34,838	11,970
Total equity		34,838	11,970

The above statement should be read in conjunction with the accompanying notes.

Statement of Changes in Equity
for the period ended 30 June 2015

	Retained earnings		Total equity	
	2015	2014	2015	2014
	\$'000	\$'000	\$'000	\$'000
Opening balance	11,970	2,297	11,970	2,297

Comprehensive income				
Other comprehensive income	(860)	(1,915)	(860)	(1,915)
Surplus for the period	23,728	11,588	23,728	11,588
Total comprehensive income	22,868	9,673	22,868	9,673
Closing balance as at 30 June	34,838	11,970	34,838	11,970

The above statement should be read in conjunction with the accompanying notes.

Cash Flow Statement
for the period ended 30 June 2015

		2015	2014
	Notes	\$'000	\$'000
OPERATING ACTIVITIES			
Cash received			
Receipts from Government		244,301	265,150
Interest		145	25
Net GST received		26,662	19,284
Return of Grant Funds from prior years		5,099	—
Total cash received		276,207	284,459
Cash used			
Employees		(839)	(912)
Suppliers		(11,275)	(8,821)
Grants		(260,958)	(263,306)
Total cash used		(273,072)	(273,038)
Net cash from operating activities	10	3,135	11,420
INVESTING ACTIVITIES			
Cash received			
Return of investment		3,038	—
Total cash received		3,038	—
Cash used			
Purchase of property, plant and equipment		-	(18)
Purchase of intangibles		(6)	(481)

Investments	(5,724)	(11,120)
Total cash used	(5,730)	(11,619)
Net cash used by investing activities	(2,692)	(11,619)

FINANCING ACTIVITIES

Cash received		
Refund of deposits held	-	3
Net cash from financing activities	-	3

Net increase in cash held	443	(195)
Cash and cash equivalents at the beginning of the reporting period	26	221
Cash and cash equivalents at the end of the reporting period	10	26

The above statement should be read in conjunction with the accompanying notes.

Schedule of Commitments as at 30 June 2015

	2015	2014
	\$'000	\$'000
BY TYPE		
Commitments receivable		
Net GST recoverable on commitments ¹	(40,680)	(49,427)
Total commitments receivable	(40,680)	(49,427)
Commitments payable		
Other commitments		
Project commitments ²	417,584	518,984
Research and development commitments ²	92,435	104,359
Other commitments ³	16,215	16,352
Total commitments payable	526,234	639,695
Net commitments by type	485,554	590,268
BY MATURITY		
Commitments receivable		
Net GST recoverable on commitments ¹		
One year or less	(27,104)	(33,075)

From one to five years	(12,891)	(14,970)
Over five years	(685)	(1,382)
Total commitments receivable	(40,680)	(49,427)
Commitments payable		
Project commitments ²		
One year or less	275,433	337,647
From one to five years	110,298	172,337
Over five years	31,853	9,000
Total project commitments	417,584	518,984
Research and development commitments ²		
One year or less	35,760	44,088
From one to five years	53,100	45,069
Over five years	3,575	15,202
Total research and development commitments	92,435	104,359
Other Commitments ³		
One year or less	13,350	8,075
From one to five years	2,865	7,967
Over five years	-	310
Total other commitments	16,215	16,352
Total commitments payable	526,234	639,695
Net commitments by maturity	485,554	590,268

¹. Commitments are GST inclusive where relevant.². The Australian Renewable Energy Agency is currently providing financial assistance to a broad portfolio of projects and measures across the various stages of renewable energy commercialisation including R&D. Project commitments, R&D commitments, scholarships and fellowships are in accordance with signed funding agreements, as varied, or in the case of scholarships, in accordance with the grant offer letter.³. Other commitments comprise obligations and liabilities associated with operational requirements. The above statement should be read in conjunction with Note 1.

Note 1: Summary of Significant Accounting Policies

1.1 Objectives of the Australian Renewable Energy Agency

The Australian Renewable Energy Agency (ARENA) is an Australian Government controlled entity. It is a not-forprofit entity. The objective of ARENA is to improve the competitiveness of renewable energy technologies and increase the supply of renewable energy in Australia.

ARENA is structured to meet the following outcome:

Outcome 1: To support improvements in the competitiveness of renewable energy and related technologies and the supply of renewable energy by administering financial assistance, developing analysis and advice about and sharing information and knowledge with regard to, renewable energy and related technologies.

ARENA operates under the following legislation:

- *Australian Renewable Energy Agency Act 2011 (as amended);*
- *Australian Renewable Energy Agency (Consequential Amendments and Transitional Provisions) Act 2011;*
- *Australian Renewable Energy Agency (Consequential Amendments and Transitional Provisions) Act 2012;*
and
- *Australian Renewable Energy Agency Determination No 1 of 2013 .*

ARENA is governed by an independent, decision-making Board. The members of the Board draw together skills in renewable energy technology, commercialisation, business investment and corporate governance to provide expert administration of ARENA funds.

ARENA is a portfolio agency of the Department of Industry and Science (the Portfolio Department). Under the *Australian Renewable Energy Agency Act 2011* (the Act) the Secretary of the Portfolio Department is required to make staff available to ARENA and pay associated costs.

The continued existence of ARENA in its present form and with its present programs is dependent on:

- Government policy and the continuation of its Act;
- continued funding under the legislation for ARENA's administration and programs; and
- the Secretary of the Portfolio Department making sufficient staff available.

The Government declared, in the 2014-15 Budget Measures, its intention to abolish ARENA. This will require the repealing of the Act. If the repeal is successful, signed funding agreements, assets and liabilities at the time of repeal will transfer to the Portfolio Department.

On the 19th of June 2014, the Australian Government tabled the Australian Renewable Energy Agency (Repeal) Bill 2014. This Bill, if enacted would abolish ARENA as a statutory entity. The Bill passed through the House of Representatives on the 1st of September 2014, and was introduced to the Senate on the 2nd of September 2014. At the date of signing these financial statements, the Bill has not been passed by the Senate.

1.2 Basis of Preparation of the Financial Statements

The financial statements are general purpose financial statements and are required by section 42 of the *Public Governance, Performance and Accountability Act 2013*.

The financial statements have been prepared in accordance with:

- a. Financial Reporting Rule (FRR) for reporting periods ending on or after 1 July 2014; and
- b. Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial statements have been prepared on an accrual basis and in accordance with the historical cost convention, except for certain assets and liabilities held at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

The financial statements are presented in Australian dollars and values are rounded to the nearest thousand dollars unless otherwise specified.

1.3 Significant Accounting Judgements and Estimates

No accounting assumptions and estimates have been identified that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next reporting period.

1.4 New Australian Accounting Standards

Adoption of New Australian Accounting Standard Requirements

No accounting standard has been adopted earlier than the application date as stated in the standard.

All other standards and interpretations that were issued prior to the sign-off date and are applicable to the current reporting period had no material effect, and are not expected to have a future material effect, on the ARENA's financial statements. AASB 1055 (Budget Reporting) is not applicable as the budget for ARENA has not been required to be presented as ARENA is not reported as a separate entity in the Portfolio Budget Statements of the Portfolio Department.

Future Australian Accounting Standard Requirements

All other new, revised, amending standards and/or interpretations that were issued prior to the sign-off date and are applicable to future reporting period(s) are not expected to have a future material impact on the ARENA's financial statements.

1.5 Revenue

Revenue from Government

Funding received or receivable from the Department of Industry and Science, appropriated to the Portfolio Department, is classified as Revenue From Government.

Resources Received Free of Charge

Resources received free of charge are recognised as gains when, and only when, a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense.

Resources received free of charge are recorded as either revenue or gains depending on their nature.

1.6 Employee Benefits

Liabilities for 'short-term employee benefits' (as defined in AASB 119 *Employee Benefits*) and termination benefits expected within twelve months of the end of reporting period are measured at their nominal amounts.

The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.

Other long-term employee benefits are measured as net total of the present value of the defined benefit obligation at the end of the reporting period minus the fair value at the end of the reporting period of plan assets (if any) out of which the obligations are to be settled directly.

Leave

The leave liabilities are calculated on the basis of employees' remuneration at the estimated salary rates that will be applied at the time the leave is taken, including the entity's employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave has been determined by reference to the "*Short Hand Method*" as per the FRR. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

Superannuation

ARENA's staff are members of defined contribution schemes. The liability for superannuation recognised as at 30 June represents outstanding contributions for the final fortnight of the year.

1.7 Leases

Operating lease payments are expensed on a straight-line basis which is representative of the pattern of benefits derived from the leased assets. The lessor effectively retains substantially all such risks and benefits of ownership.

1.8 Fair value measurement

ARENA deems transfers between levels of the fair value hierarchy to have occurred at the end of the reporting period.

1.9 Cash and Cash Equivalents

Cash is recognised at its nominal amount. Cash and cash equivalents includes:

- a. cash on hand; and
- b. demand deposits in bank accounts with an original maturity of 3 months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value.

1.10 Financial Assets

ARENA classifies its financial assets in the following categories:

- a. available-for-sale financial assets; and
- b. loans and receivables.

The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Financial assets are recognised and derecognised upon trade date.

Available-for-Sale Financial Assets

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories.

Available-for-sale financial assets are recorded at fair value. Gains and losses arising from changes in fair value are recognised as a “below the line item” in the Statement of Comprehensive Income with the exception of impairment losses. Interest is calculated using the effective interest method. Where the asset is disposed of or is determined to be impaired, part (or all) of the cumulative gain or loss previously recognised in the reserve is included in surplus and deficit for the period.

Loans and Receivables

Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as ‘loans and receivables’. Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest rate.

Effective Interest Method

The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset, or, where appropriate, a shorter period.

Impairment of Financial Assets

Financial assets are assessed for impairment at the end of each reporting period.

1.11 Financial Liabilities

Other Financial Liabilities

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced). Supplier and other payables are

derecognised on payment.

1.12 Contingent Liabilities and Contingent Assets

Contingent liabilities and contingent assets are not recognised in the statement of financial position but are reported in the notes. They may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured. Contingent assets are disclosed when settlement is probable but not virtually certain and contingent liabilities are disclosed when settlement is greater than remote.

1.13 Acquisition of Assets

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

1.14 Property, Plant and Equipment

Property, plant and equipment are valued at cost in accordance with the Financial Reporting Rule.

1.15 Intangibles

ARENA's intangibles comprise internally developed software for internal use. These assets are carried at cost less accumulated amortisation and accumulated impairment losses. The threshold for the recognition is \$200,000.

Software is amortised on a straight-line basis over its anticipated useful life. The useful life for ARENA software is 3 to 10 years (2013-14: 3 to 10 years).

All software assets were assessed for indications of impairment as at 30 June 2015.

1.16 Grants

Grants are recognised to the extent that services required to be performed by the grantee have been performed or the grant eligibility criteria have been satisfied. A commitment is recorded when ARENA has a binding agreement to make these grants but services have not been performed or criteria satisfied. Where grant monies are paid in advance of performance or eligibility, a prepayment is recognised.

Grants payable are settled within twelve months of recognition.

Locked Box Arrangements

During 2014-15, ARENA entered into Locked Box funding arrangements for a small number of grant funding contracts. The Locked Box arrangement requires ARENA to deposit the total amount of the grant into a prescribed bank account, in the recipient's name, after the execution of a legally binding funding agreement.

At the time of payment, the transaction is recorded as a Prepayment in the Statement of Financial Position. (Prepayments are expected to be expensed within twelve months with no expectation of impairment). Upon the recipient satisfying certain conditions, the Prepayment is transferred to Grant Expenses in the Statement of Comprehensive Income. That is, when control of a grant passes to the grantee upon the necessary grant conditions having been met.

ARENA continues to be responsible and accountable for ensuring that the funds are only released from the Locked Box when conditions specified in the grant funding contract have been met. Accordingly, the value of Locked Boxes at balance date is disclosed under Note 18: Assets Held in Trust.

1.17 Taxation

ARENA is exempt from all forms of taxation except Fringe Benefits Tax and the Goods and Services Tax (GST).

Revenues, expenses and assets are recognised net of GST except:

- a. where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- b. for receivables and payables.

Note 2: Events After the Reporting Period

ARENA is not aware of any subsequent Adjusting Events that have the potential to significantly affect its ongoing structure or financial activities.

Note 3: Expenses

	2015	2014
	\$'000	\$'000
Note 3A: Employee Benefits		
Board remuneration fees	95	137
Wages and salaries	556	540
Superannuation:		
Defined contribution plans	129	111
Leave and other entitlements	129	96
Total employee benefits	909	884
Note 3B: Suppliers		
Goods and services supplied or rendered		
Audit fees	93	90
Consultants	5,740	6,283
Insurance ¹	-	268
Travel	177	260
Legal fees	2,197	1,599
Service level agreement ²	-	192
Department support costs (resources received free of charge) ³	10,363	14,282
Other	549	1,235
Total goods and services supplied or rendered	19,119	24,209
Goods and Services rendered and supplied in connection with:		
Related parties ³	10,842	15,915
External parties	8,277	8,294
Total goods and services supplied or rendered	19,119	24,209

Other suppliers		
Operating lease rentals in connection with		
Operating lease rentals – external parties:		
Minimum lease payments	194	157
Workers compensation expenses	5	9
Total other suppliers	199	166
Total suppliers	19,318	24,375

¹ From 1 July 2014, insurance is paid by the Portfolio Department on ARENA's behalf.² The Portfolio Department is reviewing the arrangements under the Service Level Agreement.³ Department support costs represent the cost of staff and associated costs made available by the Secretary of the Portfolio Department (also refer to Statement of Comprehensive Income – own source revenue). This forms a majority of the total related party transactions above.

	2015	2014
	\$'000	\$'000
Note 3C: Grants		
Public sector		
Australian Government entities (related entities)	11,968	14,388
State and Territory Governments	420	187
Private sector		
Australian private companies	153,745	27,883
Australian public companies	27,265	158,793
Individual/sole traders	-	3
International organisations ¹	589	1,105
Other incorporated entities ²	22,217	36,980
Total grants	216,204	239,339

¹ This represents the Australian Government's contribution to the Clean Energy Solutions Center and the International Renewable Energy Agency.² This represents the level of Grants payments made to Australian Universities.

Note 3D: Other Comprehensive Income

Decrease in the value of investment ¹	860	1,915
Total other comprehensive income items	860	1,915

¹ This represents the change in value of the Renewable Energy Venture Capital Fund Commonwealth Participation Trust, the investment is shown in the Statement of Financial Position (refer to Note 5B).

Note 4: Own-Source Income

	2015	2014
	\$'000	\$'000
OWN-SOURCE REVENUE		
Note 4A: Interest received		
Deposits	36	25
Repayment of interest earned on returned grant funds	109	–

GAINS

Note 4B: Other Gains

PAYG receivable from prior year	85	—
Gain on sale of assets (Investments)	129	—
	214	—

Note 5: Financial Assets

	2015	2014
	\$'000	\$'000
Note 5A: Trade and Other Receivables		
Receivable from Portfolio Department	301	178
GST receivable from the Australian Taxation Office	3,653	6,225
PAYG receivable from the Australian Taxation Office	85	—
Other receivables	28	4
Total trade and other receivables (gross)	4,067	6,407

All receivables are expected to be recovered in less than 12 months and are not overdue.

Note 5B: Other Investments

REVC Fund Commonwealth Participation Trust	13,058	11,131
Total other investments	13,058	11,131

Other investments are expected to be recovered in more than 12 months. ARENA holds 18,555,156 (2014: 15,767,998) fully paid "A" class units in the Renewable Energy Venture Capital Fund Commonwealth Participation Trust (Trust). The fair value of this investment is ARENA's share of the net assets of the audited Trust. The change in the value of the investment is shown against Other Comprehensive Income. (Refer to Note 3D). The principal activity of the Trust is to invest in the commercialisation of renewable energy companies. ARENA's return from the Trust is initially limited to the capital committed plus interest at the long term bond rate. Any additional return from the Trust is split amongst the unit holders, including ARENA, on an agreed basis.

Note 6: Fair Value Measurements

The following tables provide an analysis of assets and liabilities that are measured at fair value. The different levels of the fair value hierarchy are defined below.

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at measurement date.

Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3: Unobservable inputs for the asset or liability.

Note 6A: Fair Value Measurements, Valuation Techniques and Inputs Used

Fair value measurements

at the end of the reporting period

For Levels 2 and 3 fair value measurements

	2015 \$'000	2014 \$'000	Category (Level 1, 2 or 3 ³)*	Valuation technique(s) ²	Inputs used	Sensitivity of the fair value measurement to changes in unobservable inputs ⁴
Financial assets ¹						
Other investments	13,058	11,131	Level 3	Cost approach	Net assets of Southern Cross REVC Fund Commonwealth Participation Trust at the end of the financial year.	The significant unobservable inputs used in the fair value measurement of ARENA's Other investments are the cost of the investments disclosed in the co-investment arrangement's audited financial statements. The cost of these investments is the basis of the fair valuation. Significant increases (decreases) in those inputs in isolation would result in a significantly higher (lower) fair value measurement. Generally, a change in the assumption used for the cost of investments within the co-investment arrangement's audited financial statements is accompanied by a directionally similar change in the calculation of net assets of the co- investment arrangement.
Total financial assets	13,058	11,131				

¹. The highest and best use of all financial assets are the same as their current use.². No change in valuation techniques were made during the period.³. **Recurring and non-recurring Level 3 fair value measurements - valuation processes**

The valuation of Other investments as at 30 June 2015, being ARENA's holding in the Southern Cross REVC Commonwealth Participation Trust, is based on the annual audited financial statements of the co-investment arrangement. The co-investment financial statements are relied upon in the absence of an active market to determine a fair value. This approach provides an accurate and reasonable valuation as the financial statements are prepared in accordance with the Australian Accounting Standards and are independently audited to ensure the statements are a true and fair representation. ARENA's policy for determining when transfers between levels are deemed to have occurred can be found in Note 1.⁴. **Recurring Level 3 fair value measurements - sensitivity analysis for financial assets and liabilities**

The use of alternative valuation methodologies for Other investments will not significantly impact the fair value.

Note 6B: Reconciliation for Recurring Level 3 Fair Value Measurements

	Financial assets	
	Other Investments	
	2015	2014
	\$'000	\$'000
As at 1 July	11,131	1,926
Total gains/(losses) recognised in net cost of services ¹	129	–
Total gains/(losses) recognised in other comprehensive income ²	(860)	(1,915)
Purchases of investments	5,724	11,120
Returns of investments	(3,066)	–
Total as at 30 June	13,058	11,131

¹. These gains/(losses) relate to the realisation of investments and are presented in the Statement of Comprehensive Income under Net Cost

of Services.². These gains/(losses) relate to the change in fair value and are presented in the Statement of Comprehensive Income under Other Comprehensive Income.

Note 7: Non-Financial Assets

	2015	2014
	\$'000	\$'000
Note 7A: Property, Plant and Equipment		
Property, plant and equipment		
Cost	9	9
Accumulated impairment	(3)	(3)
Accumulated depreciation	(1)	–
Total property, plant and equipment	5	6

No indicators of impairment were found for property, plant and equipment. No property, plant and equipment is expected to be sold or disposed of within the next 12 months.

Note 7B: Intangibles

Computer software		
Internally developed – in progress	–	22
Internally developed – in use	854	827
Accumulated amortisation	(136)	(51)
Total computer software	718	798

No indicators of impairment were found for intangible assets. No intangibles are expected to be sold or disposed of within the next 12 months.

Note 7C: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment and intangibles

Reconciliation of the opening and closing balances for 2015

	Property, plant and equipment	Computer software internally developed
	\$'000	\$'000
As at 1 July 2014		
Gross book value	9	849
Accumulated depreciation and impairment	(3)	(51)
Total as at 1 July 2014	6	798
Additions		
Purchase or internally developed	-	5
Depreciation/Amortisation	(1)	(85)
Total as at 30 June 2015	5	718
Total as at 30 June 2015 represented by		
Gross book value	9	854
Accumulated depreciation and impairment	(4)	(136)
Total as at 30 June 2015	5	718

Reconciliation of the opening and closing balances for 2014

	Property, plant and equipment	Computer software internally developed
	\$'000	\$'000
As at 1 July 2013		
Gross book value	—	368
Accumulated depreciation and impairment	—	—
Total as at 1 July 2013	—	368
Additions		
Purchase or internally developed	18	481
Depreciation/Amortisation	(3)	(51)
Other movements		

Assets written off	(9)	—
Total as at 30 June 2014	6	798
Total as at 30 June 2014 represented by		
Gross book value	9	849
Accumulated depreciation and impairment	(3)	(51)
Total as at 30 June 2014 represented by	6	798

Note 8: Payables

	2015	2014
	\$'000	\$'000
Note 8A: Suppliers		
Supplier payables expected to be settled next 12 months		
Trade creditors and accruals – related	130	999
Trade creditors and accruals – external	906	1,115
Total suppliers	1,036	2,114

Settlement is usually made within 30 days.

Note 8B: Grants

Public sector		
Australian Government entities (related entities)	2,450	779
Private sector		
Australian private companies	736	2,727
Other incorporated entities ¹	-	692
Total grant payables	3,186	4,197

¹ Relates mainly to funding provided by ARENA to Australian universities for scholarships and fellowships. Settlement is usually made within 30 days.

Note 9: Provisions

	2015	2014
	\$'000	\$'000
Note 9A: Employee Provisions		
Leave	136	74
Total employee provisions	136	74

Employee provisions expected to be settled

No more than 12 months	95	59
More than 12 months	41	15
Total employee provisions	136	74

Note 10: Cash Flow Reconciliation

	2015	2014
	\$'000	\$'000
Reconciliation of cash and cash equivalents as per Statement of Financial Position to Cash Flow Statement		
Cash and cash equivalents as per:		
Cash flow statement	469	26
Statement of financial position	469	26
Difference	-	-
Reconciliation of net cost of services to net cash from operating activities:		
Net cost of services	(220,696)	(250,354)
Add revenue from Government	244,424	261,942
Adjustments for non-cash items		
Depreciation/amortisation	86	54
Write down of assets	-	9
Gain on Sale of Investment	(129)	-
Movements in assets/liabilities		
Assets		
(Increase)/Decrease in net receivables	2,367	(660)
(Increase)/Decrease in prepayments	(20,897)	(36)
Liabilities		
Increase/(Decrease) in employee provisions	62	40
Increase/(Decrease) in suppliers payables	(1,077)	839
Increase/(Decrease) in grant payables	(1,011)	(348)
Increase/(Decrease) in other payable	6	(65)
Net cash from operating activities	3,135	11,420

Note 11: Contingent Assets and Liabilities

	2015	2014
	\$'000	\$'000

Claims for damages or costs		
Contingent liabilities recognised	500	500
Net contingent assets/(liabilities)	(500)	(500)

Contingencies

There is one quantifiable contingent liability of \$500,000 in respect of a letter of demand received in relation to an ARENA project.

As at 30 June 2015, ARENA was not aware of any unquantifiable or significant remote contingencies.

Note 12: Senior Management Personnel Remuneration

	2015	2014
	\$'000	\$'000
Short-term employee benefits:		
Salary	570,703	555,087
Board remuneration fees	94,664	137,068
Total short-term employee benefits	665,367	692,155
Post-employment benefits:		
Superannuation	68,485	69,440
Total post-employment benefits	68,485	69,440
Other long-term employee benefits:		
Annual leave	57,956	57,956
Long-service leave	15,376	15,376
Total other long-term employee benefits	73,332	73,332
Total senior executive remuneration expenses	807,184	834,927

The total number of senior management personnel of 7 individuals (2013-14: 9) includes 5 ARENA Directors (2013-14: 7). Two Directors are personnel from the Portfolio Department and are not remunerated.

Note 13: Related Party Disclosures

	2015	2014
	\$'000	\$'000
Other transactions with Directors or Director-related entities	-	32
Payments to directors/director-related entities	-	32

There were no related party transactions in 2014-15. In 2013-14, ARENA had a contract for the provision of services in place with SolarFuture Pty Ltd, a director-related entity of Mark Twidell. The contract was to provide high-level advice to assist ARENA to prepare and implement its strategy, manage relationships with key stakeholders, integration of programmes and improving business processes. Mr Twidell ceased as a director in October 2013.

Note 14: Financial Instruments

	2015	2014
	\$'000	\$'000
Note 14A: Categories of Financial Instruments		
Financial Assets		
Loans and receivables		
Cash and cash equivalents	469	26
Trade and other receivables	28	4
Total loans and receivables	497	30
Available-for-sale financial assets		
Investments	13,058	11,131
Total available-for-sale financial assets	13,058	11,131
Total financial assets	13,555	11,161

Financial Liabilities		
Financial liabilities measured at amortised cost		
Trade creditors	1,036	2,114
Grant payables	3,186	4,197
Total financial liabilities measured at amortised cost	4,222	6,311
Total financial liabilities	4,222	6,311

The net fair value of the financial assets and liabilities are at their carrying amounts.

	2015	2014
	\$'000	\$'000
Note 14B: Net Gains or Losses on Financial Assets		
Loans and receivables		
Interest revenue	145	25
Net gains/(losses) on loans and receivables	145	25
Available-for-sale financial assets		
Fair value changes	(860)	(1,915)
Net gains/(losses) on available-for-sale financial assets	(860)	(1,915)
Net gains/(losses) on financial assets	(715)	(1,890)

Note 14C: Credit Risk

ARENA was exposed to minimal credit risk as loans and receivables were cash and trade receivables. The maximum exposure to credit risk was the risk that arises from potential default of a debtor. This amount was equal to the total amount of other receivables of \$0.028m (2013-14 \$0.004m).

The entity held no collateral to mitigate against credit risk. The risk of interest rate movements is deemed to be immaterial due to the way ARENA manages its cash requirements.

Note 14D: Liquidity Risk

ARENA's financial liabilities were payables. The exposure to liquidity risk was based on the notion that ARENA will encounter difficulty in meeting its obligations associated with financial liabilities. This was highly unlikely due to government funding mechanisms available to ARENA and internal policies and procedures in place to ensure there were appropriate resources to meet its financial obligations.

Note 14E: Market Risk

ARENA held basic financial instruments that did not expose the entity to certain market risks, such as Currency risk, Interest risk and Other price risks.

Note 15: Financial Assets Reconciliation

	2015	2014
	Notes \$'000	\$'000
Financial Assets		
Total financial assets as per Statement of Financial Position		17,564
		17,594
Less: non-financial instrument components		
Statutory receivables	5A	(6,225)
		(3,738)
Receivable from Portfolio Department	5A	(178)
		(301)
Total non-financial instrument components		(6,403)
		(4,039)
Total financial assets as per financial instruments Note 14A		11,161
		13,555

Note 16: Reporting of Outcomes

	Outcome 1	
	2015	2014
	\$'000	\$'000

Note 16: Net Cost of Outcome Delivery

Departmental		
Expenses	236,517	264,661
Own-source income	(15,821)	(14,307)
Net cost of outcome delivery	220,696	250,354

ARENA has a single Outcome which is described in Note 1.1. Net costs shown included intra-government costs that were eliminated in calculating the actual Budget Outcome. Refer to Outcome 1 Resourcing Table of this Annual Report.

The face statements of these financial statements represent the major classes of departmental expense, income, assets and liabilities by outcome and as such they are not repeated in Note 16.

Note 17: Remuneration of Auditors

	2015	2014
	\$'000	\$'000
The auditor of ARENA is the Australian National Audit Office (ANAO).		
Amounts received or due and receivable by the ANAO for		
Financial statement audit services for ARENA	93	90
Total	93	90

No other services were provided by the ANAO.

Note 18: Assets Held In Trust

	2015	2014
Monetary assets	\$'000	\$'000
As at 1 July	-	-
Receipts	157,749	-
Payments	(59,343)	-
Total as at 30 June	98,406	-

Whilst this note should be read in conjunction with Note 1.16 – Grants, the transaction values mentioned above are not linked to any other Statement or Note within these documents.

This note has been primarily added to the Statement set for information purposes only. It provides the reader/user with an indication of Locked Box funding levels.

Statement Key:

Receipts of \$157.749m was the amount paid into Locked Boxes by ARENA during 2014-15. This amount includes \$2.4m in accrued interest.

Payments of \$59.343m are those amounts which have been withdrawn by the project from Locked Boxes in accordance with agreed milestones.

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Acronyms and initialisms

ABIR	Advanced Biofuels Investment Readiness
ANAO	Australian National Audit Office
ARENA	Australian Renewable Energy Agency
ASCI	Accelerated Step Change Initiative
ASI	Australian Solar Institute
ASTRI	Australian Solar Thermal Research Initiative
CARRE	Community and Regional Renewable Energy Programme

CEFC	Clean Energy Finance Corporation
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CRI	Commercial Readiness Index
CSP/CST	concentrated solar power/concentrated solar thermal
EIF	Education Investment Fund
ERP	Emerging Renewables Programme
EOI	expression of interest
FTE	full-time equivalent
GFS	General Funding Strategy
GST	goods and services tax
GW	gigawatt
I-RAR	Regional Australia's Renewables Industry Programme
IP	Investment Plan
MW	megawatt
PGPA	Public Governance, Performance and Accountability
PV	photovoltaic
RAC	Risk and Audit Committee
RAR	Regional Australia's Renewables
RET	Renewable Energy Target
REVC	Renewable Energy Venture Capital
SHARE	Supporting High-value Australian Renewable Energy Knowledge
TRL	Technical Readiness Level
WHS	work health and safety

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	For each person to whom financial assistance has been provided, particulars of:	
	<ul style="list-style-type: none"> name of the person nature and amount of the financial assistance provided or committed renewable energy technology or technologies to which the assistance relates 	64-75
Australian Renewable Energy Agency Act 2011 (section 70)	Assessment of the extent to which agreements for the provision of financial assistance entered into during the year have progressed, or are expected to progress, the principle objectives and priorities as stated in the general funding strategy in force for the year	64-75
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	In respect of financial assistance provided under a	

Australian Renewable Energy Agency
(Consequential
Amendments and Transitional Provisions) Act
2011(Schedule 2, Part 2, section 28)

transferred Commonwealth funding agreement or
ASI Limited
agreement:

- name of the person 64-75
- nature and amount of the financial assistance provided or committed
- renewable energy technology or technologies to which the assistance relates

Annual report content requirements:

Financial

statements prepared by the directors in
accordance with
the:

Public Governance, Performance and
Accountability Act
2013 (section 22), Public Governance,
Performance and
Accountability (Financial Reporting) Rule 2015

- Government Policy Orders—which contain the requirements for the content of the report of operations of a Commonwealth authority for financial years ending on or after 30 June 2005
- Public Governance, Performance and Accountability (Financial Reporting) Rule 2015 —which outlines the requirements for the preparation of annual financial statements by Commonwealth authorities 76-109

Auditor General's report to the Minister on those financial statements, prepared under the Public Governance,
Performance and Accountability (Financial Reporting) Rule
2015 in relation to ARENA's operations as required by the
Finance Minister, including but not limited to annual PGPA
Act compliance reporting under the PGPA Framework

Directors (para 13)

- names, qualifications and experience
- executive director or non-executive director 5, 18-20,
- meeting attendance 56-59
- approval and preparation of report of operations (para 6)

Commonwealth Authorities (Annual Reporting)
Orders 2011
(Public Governance, Performance and
Accountability
(Consequential and Transitional Provisions)
Rule)

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Exemption from the Orders (para 7)	NA
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Index of requirements (para 21)	Yes
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<ul style="list-style-type: none"> • decisions of administrative tribunals • reports by the Auditor-General, a parliamentary committee, the Commonwealth Ombudsman or the Office of the Australian Information Commissioner 	53
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<ul style="list-style-type: none"> • enabling legislation, including a summary of agency's objectives and functions 	16
Ministerial directions and other statutory requirements (para 12)	
<ul style="list-style-type: none"> • directions • General Policy Orders • other legislation 	18
Organisational structure (para 14)	
<ul style="list-style-type: none"> • structure • location/s of operations • statement on governance, including <ul style="list-style-type: none"> ◦ board committees and responsibilities ◦ education and performance review processes for directors ◦ ethics and risk management policies 	18-19, 20-21, 51
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<ul style="list-style-type: none"> • significant events decisions or issues which may affect the entity or any of its subsidiaries (section 19 of 	18, 24-47,

- operational and financial results
- state of affairs or principle activities
- amendments to enabling or other legislation

	Standards of presentation and language and design (paras 8–9)	Yes
	Subsidiaries (paras 14 and 18)	NA
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