



# Renewable Energy Venture Capital Program Evaluation Report

PREPARED FOR:  
Australian Renewable Energy Agency



University of  
Technology Sydney  
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# Contents

<b>Acronyms</b>	<b>iv</b>
<b>Glossary</b>	<b>iv</b>
<b>Summary of Findings and Recommendations</b>	<b>1</b>
Insights for Future Programs	3
Recommendations for the REVC Fund Program	4
<b>The REVC Fund Program and the SCRE Fund</b>	<b>5</b>
<b>The Evaluation</b>	<b>6</b>
<b>Evaluation Findings</b>	<b>7</b>
Impact	7
Performance	9
Management	10
Effectiveness	11
Efficiency	12
Appropriateness	12
<b>Appendix 1 – Investments as at 31 December 2018</b>	<b>13</b>



## Acronyms

<b>ARENA</b>	Australian Renewable Energy Agency
<b>CEFC</b>	Clean Energy Finance Corporation
<b>CEIF</b>	Clean Energy Innovation Fund
<b>CID</b>	Co-investment Deed
<b>DRET</b>	Former Department of Resources, Energy & Tourism
<b>IMA</b>	Investment Management Agreement
<b>PBR</b>	Portfolio Benchmark Return
<b>RE</b>	Renewable Energy
<b>SBCVC</b>	Softbank China Venture Capital
<b>SXVP</b>	Southern Cross Venture Partners
<b>VC</b>	Venture Capital

## Glossary

<b>Fund Manager</b>	SXVP
<b>REVC Fund Program</b>	Renewable Energy Venture Capital Fund Program
<b>SCRE Fund</b>	Southern Cross Renewable Energy Fund
<b>Private Investor</b>	Softbank China Venture Capital Pte Ltd.
<b>Trustee / Commonwealth Investor</b>	Southern Cross REVC Trusco Pty Ltd.
<b>Trust</b>	Southern Cross REVC Commonwealth Participation Trust

# Summary of Findings and Recommendations

## **The Southern Cross Renewable Energy Fund (SCRE Fund) was established in 2012 under the Renewable Energy Venture Capital Fund Program (REVC Fund Program).**

The up to \$150 million, 13-year fund is managed by Southern Cross Venture Partners (SXVP) with co-investment from Softbank China Venture Capital (SBCVC) and the Australian Renewable Energy Agency (ARENA).

ARENA appointed the University of Technology Sydney (UTS) to evaluate the performance, management and impact of the REVC Fund Program, the SCRE Fund and its portfolio of investments. The evaluation used SCRE Fund data up to 31 March 2019 for portfolio-level data and up to 31 December 2018 for detailed breakdown of investments, revenues and jobs.

From 2012 to 2018, the SCRE Fund invested over \$72 million in 12 energy start-ups, 10 of which are still active as at March 2019. It is currently too early to say how financially successful the SCRE Fund will be as only two of the 12 investments have exited. The Fund has made a small positive return of 4% across its exited investments, just slightly lower than the Australian Investment Council's median return for all Australian VC funds across all vintages. Also, an upward trend has been observed in valuations of the start-ups the SCRE Fund continued to invest in.

For almost all currently invested companies that have achieved Australian revenue to date, revenue has increased since the SCRE Fund's investment.

The SCRE Fund has contributed to an increase in the number of Australian renewable energy and enabling technology

companies in Australia. There is evidence that at least some of the companies in the portfolio would either not have been established in Australia, or would have struggled to find alternative sources of finance in the absence of the SCRE Fund's support.

The success of these companies to date is mixed. Three companies are showing early success. Others have not been successful or have had success early but seem unlikely to progress further. For some companies, even though they demonstrate potential, it is too early to predict success.

Current portfolio companies have all seen an increase in employment since investment, though not all have sustained these employment levels until the present.

This picture of mixed success is consistent with venture capital (VC) patterns in renewable energy (RE) in other countries and in other sectors, where it is expected that some companies will fail, and others will succeed – a reflection of the higher risk associated with earlier stage investments.

The SCRE Fund has successfully leveraged co-investment into Australian RE companies from the private sector in Australia and overseas. For all rounds in which the SCRE Fund participated, the REVC Fund Program's leverage was 5.1 and the SCRE Fund's leverage was 2.1.

The SCRE Fund has successfully leveraged co-investment into Australian RE companies from the private sector in Australia and overseas.



# Summary of Findings and Recommendations

**The SCRE Fund has been managed and operated effectively and efficiently and in line with market practices.**

In the early years of operation of the SCRE Fund, a difference in alignment of interests of parties to the SCRE Fund contributed to a slower pace of investment. However, respective interests have become better aligned over time. The working relationship between ARENA, the Fund Manager and the co-investor is now strong.

Stakeholders appreciated the Fund Manager's proactive support for portfolio companies and their management capability. Portfolio companies and stakeholders overall appreciated the professionalism, expertise, knowledge and networks of the Fund Manager's team.

Overall, the SCRE Fund has been effective in meeting its objectives. The SCRE Fund played a catalytic role in building industry confidence as a government backed anchor investment providing patient capital to RE companies. The SCRE Fund has continued to find investable deals and willing co-investors despite a shifting policy landscape and deal-flow of variable quality.

Globally, there are known challenges to VC in RE, primarily due to RE typically having higher capital intensity, higher regulatory barriers and longer timeframes to achieve scale. However, stakeholders were unanimous in their agreement on the need for the SCRE Fund when it was established and now.

The SCRE Fund has continued to find investable deals and willing co-investors despite a shifting policy landscape...





# Insights for Future Programs

## **Ongoing Australian Government support of venture capital arrangements is valuable.**

The SCORE Fund demonstrates that the VC funding mechanism in particular has multiple benefits, including the added value provided to the sector by an experienced Fund Manager. The REVC Fund Program was established in response to a market gap in Australia for early stage RE investment. While the establishment of the Clean Energy Finance Corporation's (CEFC's) Clean Energy Innovation Fund (CEIF) has somewhat changed the market dynamics, VC in RE in Australia still faces challenges and stakeholders were clear on the ongoing need for a fund like the SCORE Fund in addition to the CEIF. Thus, at this stage, there is value in ARENA/the Australian Government continuing to support a public/private sector VC arrangement focused on the RE sector, beyond the life of the REVC Fund Program.

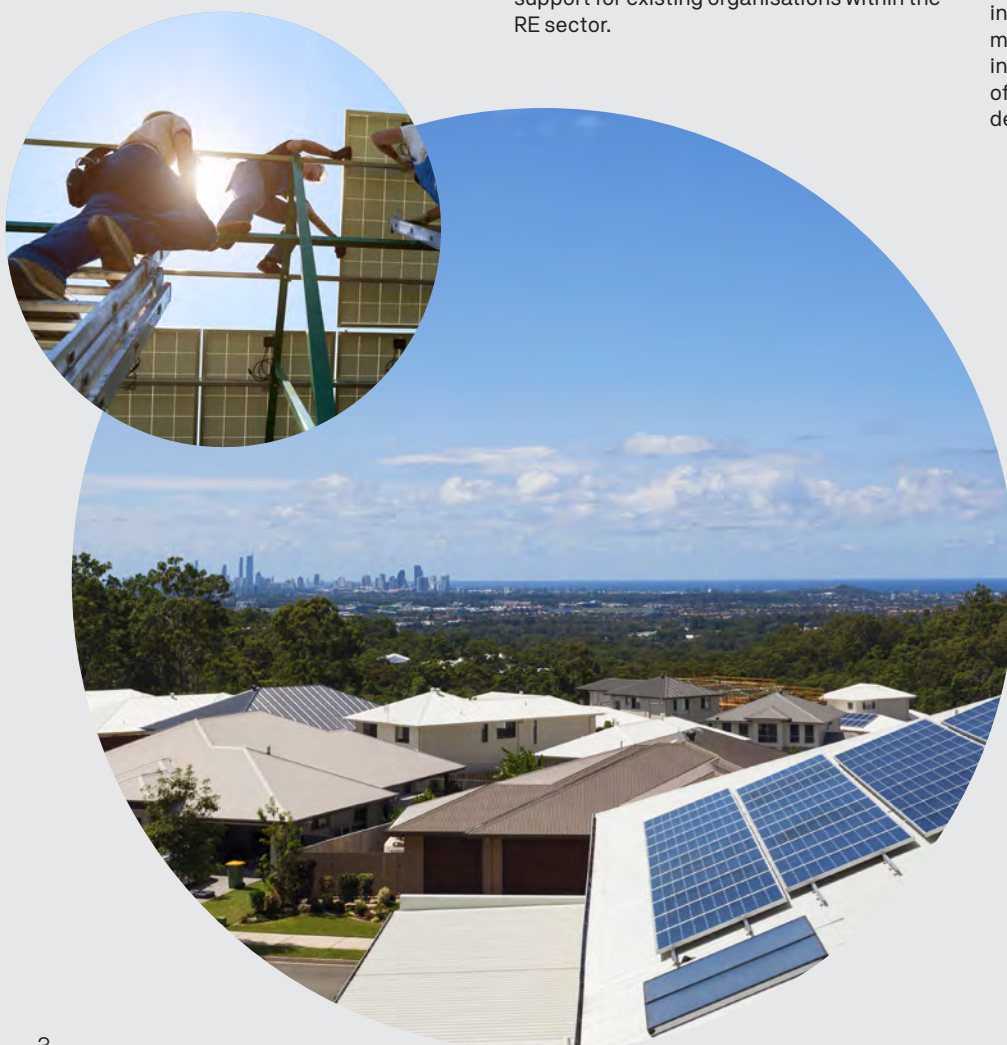
## **There are opportunities for the Australian Government to further support capacity building and knowledge sharing within the renewable energy sector.**

The evaluation revealed there are opportunities to further improve the quality of early stage RE deal flow in the market. To support this, ARENA and related government agencies could consider whether and how to further support the sharing of knowledge, experience, upskilling and capacity building of start-ups, entrepreneurs and management teams within the RE sector. This support would extend the impact of activities undertaken by VC fund managers. Recommendations on the mechanisms and level of support required are beyond the scope of this evaluation and would require further market research. However, potential mechanisms could include management training for RE start-ups, communities of practice, support for existing accelerators, or support for new accelerators. Much could potentially be delivered through targeted support for existing organisations within the RE sector.

## **Future public-private VC arrangements should consider options to proactively address and streamline differing objectives between entities and enhance management efficiency.**

The nature of the SCORE Fund – a public-private co-investment arrangement – meant that in the early stages of the Fund's life there was some misalignment in investor objectives, although these reduced over time. For any future public-private VC funding mechanisms, clear upfront negotiation and dialogue is needed to ensure that differing objectives can be successfully accommodated from the outset.

The management arrangements for the REVC Fund Program, whereby SBCVC had a role in investment decision-making, also created some inefficiencies, although there were benefits to having managerial input and capital from an important overseas market. For any future similar funds, it would be preferable for the Fund Manager to manage the capital at arms-length to the primary investor/s, noting however that arms-length management may ultimately be compromised in favour of the ability to secure a larger pool of capital and the desired market reach, depending on the availability of co-investors.



The REVC Fund Program was established in response to a market gap in Australia for early stage RE investment.

# Recommendations for the REVC Fund Program

**ARENA should further support the knowledge sharing activities undertaken by the Fund Manager.**

While the REVC Fund Program does not have a clear knowledge sharing mandate, ARENA as part of its larger role in promoting knowledge and innovation, could work together with the Fund Manager to identify knowledge sharing opportunities in the RE sector in Australia, based on the SCRE Fund experience. The Fund Manager is already informally involved in engaging with the sector through networks and conferences. This engagement with prospective investee companies as well as the broader VC market can create opportunities to learn, share and collaborate. This can be facilitated through ARENA's A-Lab processes, accelerators and incubators.

**For the remaining investment period, there are opportunities to further strengthen the range and reach of the SCRE Fund to advance the Australian RE sector.**

To enhance the outcomes of the internationalisation strategy, it is recommended that ARENA encourages the Fund Manager to prioritise opportunities and strategies to grow its Australian-based portfolio companies in international markets, through its US and China networks (insofar as this is consistent with the objectives of the companies and continued growth in the Australian market).

The eligibility criteria of the SCRE Fund are fit for purpose in terms of achieving range and reach. It is recommended that these should be maintained for the remaining investment period.

**Strengthening the quality of portfolio company reporting and better aligning reported indicators with objectives would assist ARENA to continue to monitor success for the remainder of the SCRE Fund.**

For the remainder of the SCRE Fund's operations, it is recommended that the Fund Manager implements closer quality control on key reports, to improve accuracy, consistency and completeness of data reported across the different documents. To assist with future evaluations, it is also recommended that ARENA and the Fund Manager together review current indicator reporting to ensure that key indicators align well with, and are clearly reported against, the REVC Fund Program objectives.



# The REVC Fund Program and the SCRE Fund

The ARENA's REVC Fund Program was established in 2011 to support the development and commercialisation of renewable energy and enabling technologies in Australia by providing VC and active investment management to companies.

In 2012, SXVP was appointed to manage a fund under the REVC Fund Program. SXVP established the \$200 million SCRE Fund with equal co-investment from SBCVC and ARENA. Following several restructures, the SCRE Fund had, at 31 March 2019, committed capital of up to \$150 million<sup>1</sup>.

The SCRE Fund provides management expertise and makes equity investments in early-stage renewable energy companies to help them overcome capital constraints, develop technologies, increase skills and forge international connections. It focuses on the three key markets of Australia, the United States and China and has a 13 year lifespan that can be extended to 15 years.

From 2012, the SCRE Fund has invested over \$72 million (Figure 1) in 12 energy start-ups, 10 of which are still active (See Appendix 1 for list of Investments).

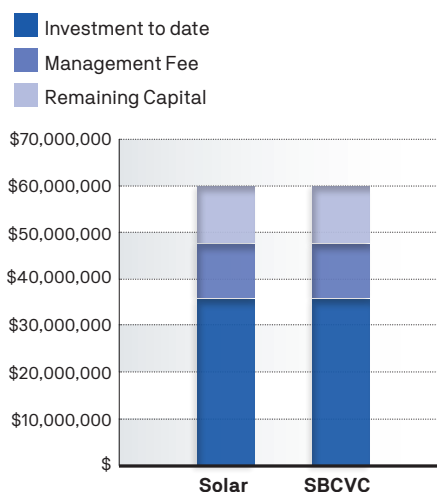
The SCRE Fund invests in seed and pre-seed, start-up or early expansion (for the purposes of the report identified as series A, B, C respectively), though in practice, the majority of investments by number and value have been series A or B<sup>3</sup> (Figure 2).

Across the SCRE Fund's lifetime, traditional RE sectors such as solar and storage have attracted the majority of the funding (Figure 3). However, as the SCRE Fund matured, it explored investments in enabling technologies like retail energy, energy software and smart meters.

## OBJECTIVES OF THE REVC FUND PROGRAM

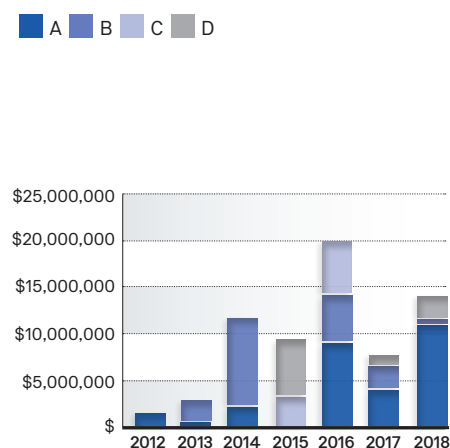
- Increase the number of Australian renewable energy and enabling technology companies that are successful in Australian and overseas markets.
- Foster the skills and management capability of Australian renewable energy and enabling technology companies by providing active investment management.
- Leverage additional investment in Australian renewable energy technology and enabling companies from the private sector, including from international sources.

**Figure 1**  
Committed capital to the SCRE Fund



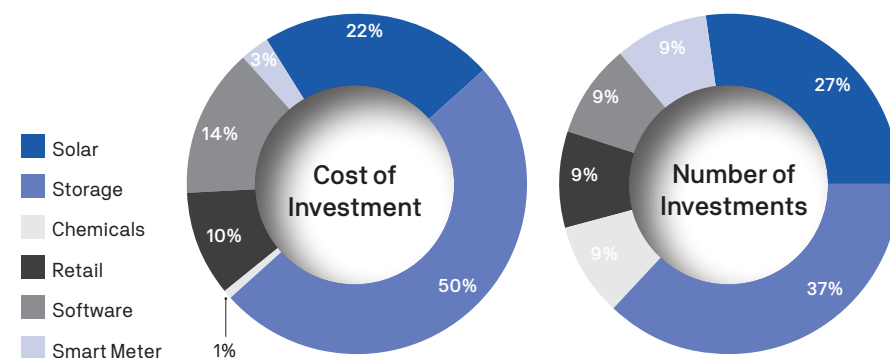
(Source: Data from SCRE Fund March 2019 monthly report)<sup>2</sup>

**Figure 2**  
SCRE Fund investments by year and investment series



(Source: Data from Fund Manager Reports to ARENA and Fund Manager Correspondence)

**Figure 3** Sector wise split of investments



(Source: Data from Fund Manager Reports to ARENA)

1. Dependent on investments made in the investment period.

2. Notes to graph: i) As an overseas entity SBCVC is not required to pay GST on management fees, hence the Management fee component for SBCVC is slightly smaller. ii) The total investment to date, management fee and remaining capital for ARENA and SBCVC total \$120 million. The 2018 restructure of the Fund increased available capital up to \$150 million depending on investments made to the end of the investment period (31 December 2019).

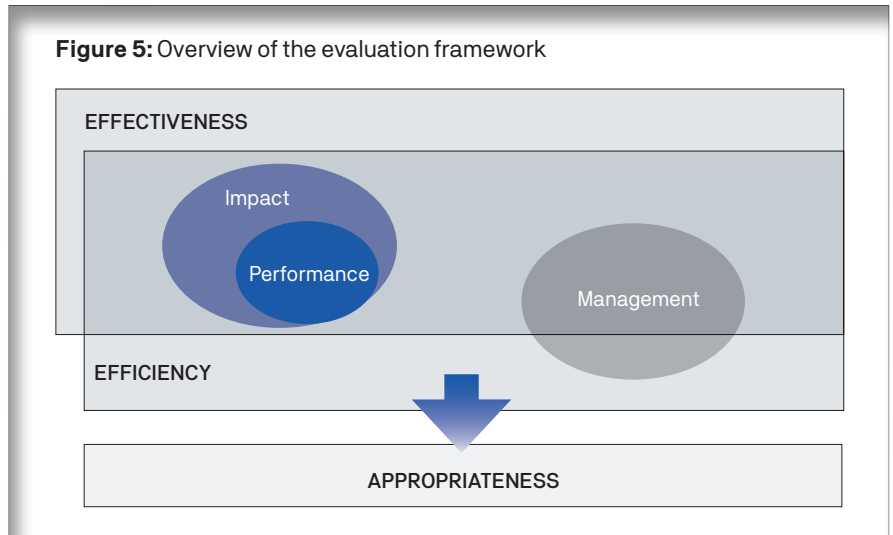
3. Although one investment was designated a series D round investment, it had the features of an earlier stage investment. The 'D' was largely reflective of multiple funding rounds with the original investor and low growth prior to the SCRE Fund investment.

# The Evaluation

**ARENA commissioned UTS to evaluate the REVC Fund Program, the SCRE Fund and its portfolio of investments.**

The UTS team adopted an evidence-based approach for the evaluation that included a review of documentary evidence, complemented by 19 qualitative semi-structured interviews with 21 relevant stakeholders, including the Fund Manager, ARENA, the investee companies, co-investors, and other stakeholders with relevant experience.

The evaluation focused on the Impact, Performance, Management and Effectiveness, Efficiency and Appropriateness of the REVC Fund Program and the SCRE Fund (Figure 5). These are described further in the evaluation findings.



# Evaluation Findings

## IMPACT

### Impact: The extent to which the SCORE Fund met the REVC Fund Program objectives.

- **Impact of the SCORE Fund on market:** increasing the number of successful companies, fostering skills & jobs and leveraging additional investment
- **Impact of the SCORE Fund on Australian companies:** helping them grow internationally, linking with potential partners established in other regions, encouraging overseas firms to partner with Australian entrepreneurs and research institutes, facilitating local Australian commercialisation from overseas.

Current portfolio companies have all seen an increase in employment since investment.

### Key findings

- Portfolio company success is mixed with a positive outlook for some companies
- SCORE Fund has successfully leveraged additional investment
- Active investment management by the Fund Manager has supported companies
- The internationalisation strategy has had mixed success
- The SCORE fund has achieved positive spill-over benefits to the broader industry

### Portfolio company success<sup>4</sup>

The success of the portfolio companies to date is mixed. For example, three companies show early success and look very promising, two companies have not been successful (and have since exited) while for others it is too early to say. Current portfolio companies have all seen an increase in employment since investment, though not all have sustained these employment levels until the present.

This picture of mixed success is consistent with VC patterns in RE in other countries and in other sectors, where it is expected that some companies will fail, and others will succeed – a reflection of the higher risk associated with earlier stage investments.

### Leveraging investment

The SCORE Fund played a catalytic role in building industry confidence as a government backed anchor investment providing patient capital to RE companies and provided a necessary 'local' Australian investment partner for overseas investors. The SCORE Fund proactively led or co-led the majority of the leveraged co-investment into Australian RE companies from the private sector in Australia and overseas. For all rounds in which the SCORE Fund participated, the REVC Fund Program's leverage was 5.1 and the SCORE Fund's leverage was 2.1.

**Table 2** Co-investor leverage by round of investment

Series	Leverage by SCORE Fund	Leverage by REVC Fund Program
A	0.5	2.0
B	1.9	4.6
C	4.4	16.2
D	3.2	7.3
All rounds	2.1	5.1

4. 'Success' of the companies and hence the impact of the SCORE Fund, is defined as a combination of financial performance (change in valuation, IRR, change in domestic and export sales from the Australian company/subsidiary) and change in number of direct jobs in Australia (Impact)



## Role of the Fund Manager in company success

Portfolio companies, and other stakeholders, viewed the active investment management support provided by the Fund Manager to consistently be very positive. Companies have particularly valued the Fund Manager's guidance, connections and networks in strengthening their management team, attracting follow-on capital and developing strategic relationships.

The active support provided by the Fund Manager is a notable positive outcome of the REVC Fund Program that is typically not available through traditional grant-funding. This reflects both the VC nature of the SCORE Fund, and also specifically, the significant experience, knowledge and professionalism of members of the Fund Manager's team.

The majority of survey respondents said they would seek to raise finance with the Fund Manager again, or recommend the Fund Manager to others.

## Investment strategy

The Fund Manager's internationalisation strategy, to foster innovation and link markets in US, China and Australia, has had mixed success to date. Overall it has been more successful in bringing non-Australian technology and expertise into the Australian market than in exporting Australian technology overseas. It has nevertheless encouraged technology development to stay onshore in Australia rather than moving offshore. The other positive of this strategy is the access it provided to the portfolio companies to overseas manufacturers and strategic partners. It is too early to be conclusive about the ultimate success of this strategy.

Another aspect of the SCORE Fund's investment strategy is following on with "winners" and cutting or selling off "low potential investments" early. In practice, the philosophy of the Fund Manager has been to not kill companies as quickly as typical VCs might.

## Broader industry impacts

The SCORE Fund has contributed to an increase in the number of Australian renewable energy and enabling technology companies in Australia. The SCORE Fund has invested in early stage, renewable energy and enabling technologies based in Australia or with an Australian subsidiary, in accordance with its mandate.

The SCORE Fund and its portfolio companies have had positive impacts on the broader RE ecosystem in Australia. Portfolio companies have partnered and worked with other companies and stakeholders in the sector, there has been transfer of knowledge and technical expertise, and skills building.

"8 out of 9 portfolio companies surveyed indicated that the SCORE Fund was very important and extremely important, while one said it was somewhat important to the company's success, particularly the Fund Manager's networks."

Source: Survey of portfolio companies conducted as part of the evaluation

## SPILL-OVER BENEFITS OF THE SCORE FUND

- Portfolio companies working with other Australian companies, such as solar panel makers
- Development of technology that has helped companies beyond the portfolio
- Development of technical expertise – for example, employment of trained graduates from Australian universities, some of whom have subsequently stayed in the sector, leading to transfer of knowledge and experience within the sector
- Informal advice and consultancy provided to ARENA projects, universities, schools
- Partnerships with universities which have helped to grow the profile of renewables and their commercialisation potential within the Australian academic community
- A shifting focus in the solar sector from cost reduction to innovation
- Education on specific new products, for example architects and builders being educated on how SunMan's eArche product can reduce construction costs when factored into building specifications
- Knowledge sharing through sponsorship and engagement in events and conferences and industry leadership
- Broad potential sectoral impacts of the technologies and products offered by the companies, such as boosting grid stability, reducing customer power bills, helping to achieve renewable energy targets

# Evaluation Findings

## PERFORMANCE

### **Performance: The extent to which the SCRE Fund met its objective of significant financial returns for investors.**

This is an indicator of companies' "success", measured in terms of change in valuation (unrealised portfolio) or Internal Rate of Return (IRR) achieved (exited companies) and change in sales, which in turn relates to the SCRE Fund's overall impact. i.e. performance is defined as a subset of Impact.

#### **Key findings**

- Small positive return of 4% across exited investments, performance of the portfolio overall is approximately breakeven
- Performance of the current portfolio companies to date is mixed with some increases and decreases in value and revenue increases for most

#### **Performance of realised investments**

It is currently too early to say how successful the SCRE Fund will be as only two of the 12 investments have exited. Total investment at 31 March 2019 was just over \$72 million. As at March 2019, the SCRE Fund has made a small positive return of 4% across its exited investments, while the current performance of the portfolio overall is approximately breakeven (overall multiple of cost is 0.98).

Whilst performance to date (based on exits) is tracking slightly below the Australian Investment Council's median return for all Australian VC funds across all vintages of 4.02%, it is not necessarily meaningful to compare the SCRE Fund's performance against broader VC performance.

The SCRE Fund is atypical for a VC fund with its Government co-investment and exclusive focus on RE technology, focus on impact, a longer investment timeframe and lower return expectations. It is important to recognise that funding start-ups is extremely difficult, and VC returns are highly unevenly distributed with most of the returns being unrealised during the initial phases.

#### **Performance of unrealised investments**

The performance of the current portfolio companies to date is mixed, where three of the 10 active companies have decreased in value since the SCRE Fund's investment; for another three their value has remained largely unchanged; while the other four companies have increased in value, to varying degrees. The SCRE Fund participated in five follow-on funding rounds within the portfolio, for which share pricing information indicated an unweighted average share price increase of 25% across the five rounds. This suggests an upward trend in valuations of the start-ups the SCRE Fund continued to invest in.

For almost all currently invested companies that have achieved Australian revenue to date, revenue has increased since the SCRE Fund's investment.

"The Fund has helped to improve the conversation about investing in RE in Australia. A lot of investment goes into Fintech because investors understand this but they do not understand energy. It may be a while before energy investments focus on small, agile, growth opportunities rather than big infrastructure."

"They (SXVP) have always been helpful in making introductions to influencers and deal people"

"(They) Identified new sources of funding and strategic partnerships. They were aligned to the industry and we gained great insight from them"

"(Fund Manager was) More involved, and more valuable due to his prior operating experience"

Source: Stakeholder interviews & survey

# Evaluation Findings

## MANAGEMENT

**Management: The extent to which the Fund Manager managed the SCRE Fund and ARENA managed the REVC Fund Program efficiently and effectively.**

### Key findings

- Early differences in co-investors' interests contributed to slow investment pace, but objectives have aligned over time
- Approach to deal making has been effective but the role of SBCVC in decision-making has complicated investment decisions
- Overall reporting is appropriate but relevance of indicators and reporting accuracy could be improved

### Working relationships & partner objectives

In the early years of operation of the SCRE Fund, the difference in alignment of interests (such as expected returns, risk appetite and the types of investable companies) of parties contributed to the slower pace of investment. The working relationship between ARENA, the Fund Manager and the co-investor has since improved and is now strong. Over time, and as a result of the restructure, the SCRE Fund has been able to support a greater range of companies, while still operating within the REVC Fund Program's objectives and outcomes. Resourcing levels for fund management have been, overall, adequate.

### Investment decision making

The Fund Manager has an effective approach to identifying potential companies focusing on a strong management team and a scalable growth plan. They have sought to build investment deals through strategic partnering, for example with Corporate VC funds, networking and syndication into deals. This has been effective and is in line with standard VC practice. The majority of survey respondents reported that it was easy or very easy to engage with the Fund Manager.

SBCVC has had a major and direct role in vetting deals and investment decision-making. Hence, companies needing to negotiate with, in effect, two separate investment committees. This has led to an extra level of negotiations with investee companies and created inefficiencies and uncertainty for the companies.

### Reporting

Overall the format of internal reporting is appropriate. There are opportunities to improve the relevance of performance indicators and to align them more closely to the objectives of the REVC Fund Program. There is also potential to improve the consistency and accuracy of reporting.



SBCVC has had a major and direct role in vetting deals and investment decision-making.



# Evaluation Findings

## EFFECTIVENESS

**Effectiveness: The extent to which the SCRE Fund met the objectives (related to impact, performance and management as described above) of the REVC Fund Program.**

### Key findings

- Overall, the SCRE Fund has been effective in meeting its objectives although partially constrained, particularly early on, by deal-flow of variable quality and external constraints

### Meeting targets

Overall, the SCRE Fund has been effective in meeting its objectives, investing in 12 energy start-ups in line with its target of 9-13 companies. While, the SCRE Fund has invested at a slower pace than targeted at the beginning of the SCRE Fund, it is expected that the SCRE Fund will be able to use the remaining \$27.7 million and therefore a total \$120 million of committed capital through follow on funding in existing investments and management fees (noting that an additional \$30 million i.e. up to \$150 million in total was available up to 31 December 2019).

### Deal flow

The SCRE Fund's ability to find investable deals has been partially constrained by the overall varied quality of deal flow in the Australia RE sector. The SCRE Fund may have contributed to growing maturity and expertise in the renewable energy start-up sector through its support for skills building in portfolio companies and spill-over effects to the broader sector.

There is a continued need for experienced VC fund managers who can contribute to lifting the management skills and capabilities of the sector. However, this needs to be an industry-wide initiative working with other co-investors, incubators and accelerators to provide support to new ideas and entrepreneurs

### External constraints

The policy environment for RE in Australia has been unstable during the life of the SCRE Fund, particularly in relation to the Renewable Energy Target and carbon pricing. At times this may have dampened investor appetite and confidence, but over the long-term it has not been sufficient to prevent continued investment in the sector. The SCRE Fund has continued to find investable deals and willing co-investors despite a shifting policy landscape.



The SCRE Fund has been effective in meeting its objectives, investing in 12 energy start-ups in line with its target of 9-13 companies.

# Evaluation Findings

## EFFICIENCY

**The efficiency of the SCRE Fund depends on outputs (impact, performance) relative to inputs, which reflects management.**

### Key findings

- Overall the SCRE Fund has been managed and operated effectively and efficiently and in line with market practices

The administrative costs of running the REVC Fund Program are relatively low compared to other ARENA programs, although a direct comparison is not relevant due to the significantly different nature of grant and VC mechanisms.

Previous reviews have found the alignment of interest and financial incentives for the Fund Manager to be satisfactory. The 2% per annum management fee is in line with standard market practice.

## APPROPRIATENESS

**Appropriateness / Relevance: The extent to which the REVC Fund Program is an appropriate mechanism to attracting more investment in the Australian Renewable Energy sector.**

### Key findings

- The SCRE Fund has filled, and continues to fill, a market gap in early stage RE funding in Australia
- The SCRE Fund contributes to achievement of ARENA's objectives and complements other funding mechanisms

### Filling the market gap

The REVC Fund Program was first established to fill a market gap between grant and debt funding of early stage companies in the sector. At that time, there was a perceived generalised market failure in Australia for early stage investment in RE technology. There was very little VC money in the overall clean technology sector, particularly with a focus on RE and early stage Series A-C capital.

### Complementarity with other mechanisms

In our opinion, the evidence from the evaluation supports the conclusion that the SCRE Fund is well aligned with, and contributes to, achievement of ARENA's objectives. Stakeholders see the SCRE Fund as being complementary to other funding mechanisms such as ARENA grants, the CEIF, Commercialisation Australia grants, R&D tax credits, accelerators and seed capital funds.

VC equity funding brings a number of important benefits to the renewable energy sector in Australia. Although early stage RE investment in Australia has not significantly changed due to the SCRE Fund, the Fund Manager has helped to connect players within the ecosystem. Experienced fund managers are able to add value, not just to their portfolio companies, but also to the wider ecosystem through feedback provided to entrepreneurs who have companies/ technologies that may not yet be investable.

The evidence from the evaluation supports the conclusion that the SCRE Fund is well aligned with, and contributes to, achievement of ARENA's objectives.



## Appendix 1 – Investments as at 31 December 2018

INVESTMENT	COMPANY	INVESTMENT	STATUS
Commercialisation of high-performance anti-reflective coatings to be applied to solar panels to make them more efficient	Brisbane Materials Holdings Inc	\$3,833,264	Active
Commercialisation of a hydrogen storage technology which will enable a new renewable energy storage solution	Hydrexia Pty Ltd	\$7,055,766	Active
Deployment of solar integration system into the Australian market	Sunverge Energy	\$18,096,316	Active
Development of a new cost effective liquid battery technology to enable 24/7 renewable electricity	Boulder Ionics	\$528,320	Exited
Development of a competitive cost position in PV manufacturing, sales and distribution in the Australian market	UCT Australia	\$5,344,638	Exited
Development of advanced lithium-ion battery storage solutions for Australian and global markets	Octillion Power Systems Australia	\$6,423,550	Active
Development of an innovative electricity retailing business model	Mojo Power Holdings Pty Ltd	\$7,317,494	Active
Deployment into the Australian market of software for the design, integration and operation of network-connected energy storage and micro-grid systems	Growing Energy Labs, Inc.	\$5,438,454	Active
Provision of software solutions to Distribution Systems Operators at the utility scale and microgrid	Greensync Holdings Pty Ltd	\$5,000,000	Active
Development of an energy measurement technology that helps better manage energy use and costs.	Energy Saving Networks (Wattwatchers)	\$2,000,000	Active
Development of intellectual property, knowledge and experience for manufacturing a cost effective, reliable and environmentally friendly sodium-ion battery.	BenAn Energy	\$4,629,050	Active
Development of an innovative glass-free lightweight flexible solar panel called eArche which can be fitted on any surface including curved surfaces.	Sunman Energy Co Ltd	\$6,574,622	Active