

Alice Springs Community Investment Survey

RePower Alice Springs

Arid Lands Environment Centre

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Executive summary

REPower Alice Springs conducted a community survey to investigate community interest in investing in a solar farm. Both residents and non-residents were surveyed, and surveys were completed both electronically and on paper.

542 surveys were completed, 442 from Alice Springs residents. Over 80% were willing to invest in a solar farm, with \$1000 to \$5000 being the most commonly stated amount to invest. Respondents wanted to invest mainly because of environmental and community concerns, rather than return on investment. Local management (80%) and operation (70%) were preferred.

REPower Alice Springs can be confident that there is a strong level of community support for community energy, backed up by willingness to invest for environmental and community reasons.

Background

RePower Alice Springs was formed in 2016 with the over-arching goal for the Alice Springs electricity to be 100% solar by 2030, including Hermannsburg and Santa Teresa which share the grid. Early work included advocacy and engagement with government, business and community stakeholders, and a survey of community knowledge, priorities, and concerns around solar energy (RePower Alice Springs 2017). Project work has focussed on the prospect of a community solar project, of a form described by Community Power Agency for their capacity *to decarbonise, decentralise and democratise our electricity system and demonstrate that renewable energy technologies work* (Hicks, Ison et al. 2014). Collaboration with the NT government's wholly own electricity generation company Territory-Generation suggested the possibility of a government-community partnership in large scale solar. However progress stalled at the point of government commitment.

To further progress towards community solar, RePower Alice Springs required information about the level of community interest and likely investment in community solar. Following the success of the 2017 community solar survey, RePower Alice Springs instigated another survey, focussing on investment. The main aim of this survey was to measure investment resource capacity in Alice Springs and gauge the potential, including preferred investors, owners and operators of an Alice Springs Solar Farm. The survey also provided RePower Alice Springs with a talking point and focus of activity for community engagement, and built on the experience of the 2017 community survey that demonstrated high levels of interest in the work of RePower Alice Springs towards achieving its vision of a 100% solar community by 2030.

Methods

Questions were developed based on information requirements and formulated through experience from the previous survey.

The survey was released on Monday 14th May, through Survey Monkey and on paper. The survey was open until after a final drive for completions at the Alice Springs EcoFair, on Monday 13th August, giving 3 months for completion. People not resident in Alice Springs were invited to complete the survey as they could be interested to invest based on financial returns and eagerness to support solar energy, and to provide talking point and engagement around solar energy at market stalls. The survey targeted older people because of the focus on investment, assuming household discretionary income increases with age. Surveys filled on paper were entered into SurveyMonkey online by RePower Alice Springs members.

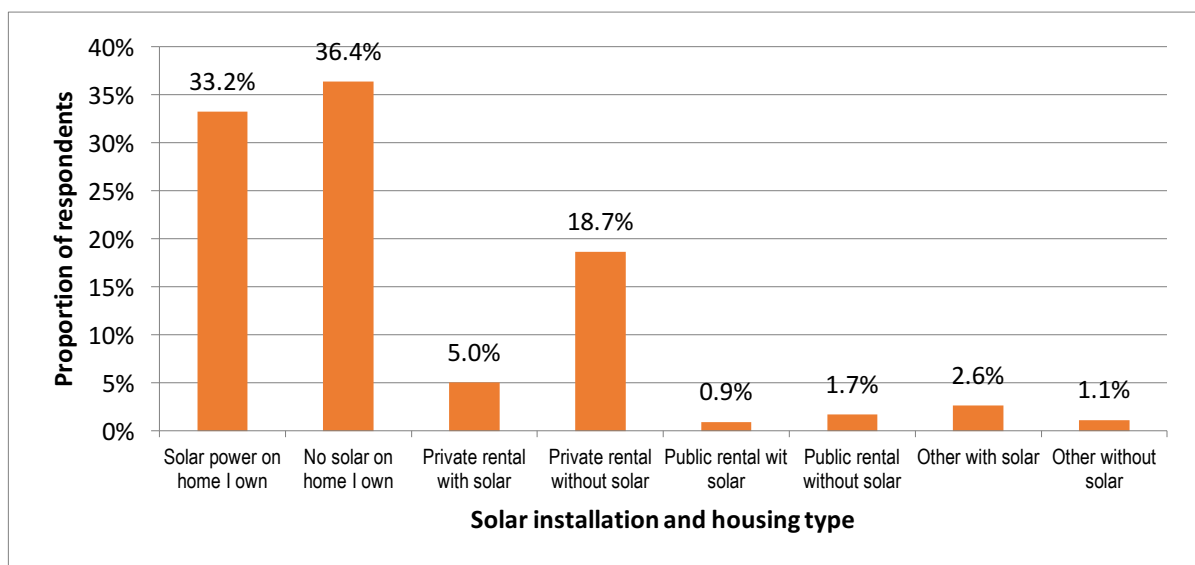
Results were exported from survey money to SPSS, and analysed using χ^2 testing for statistical significance of proportions.

Results

542 people responded to the survey with 442 (81.5%) based in Alice Springs, and 286 (52.8%) women. 75% of respondents were over 35 years old, including 38% over 55 years. 82% lived in Alice Springs, 2.2% elsewhere in NT, 13.5% elsewhere in Australia and 2.2% internationally.

Most respondents did not have solar on their homes (56.2%), including both owned (36.4%) and rented homes (18.7%). Almost 2/5 (39.1%) had solar PV on their homes including 33.2% with solar on their homes they owned, and 5.0% on private and 0.9% on public rental. Thus 70.6% of respondents were home owners, compared with 52% in the Alice Springs local government area in the 2016 Census data; while 26.5% of survey respondents were in rental properties compared with 43.7% in the Census (Australian Bureau of Statistics 2018).

Figure 1: Solar on current housing (n=536)

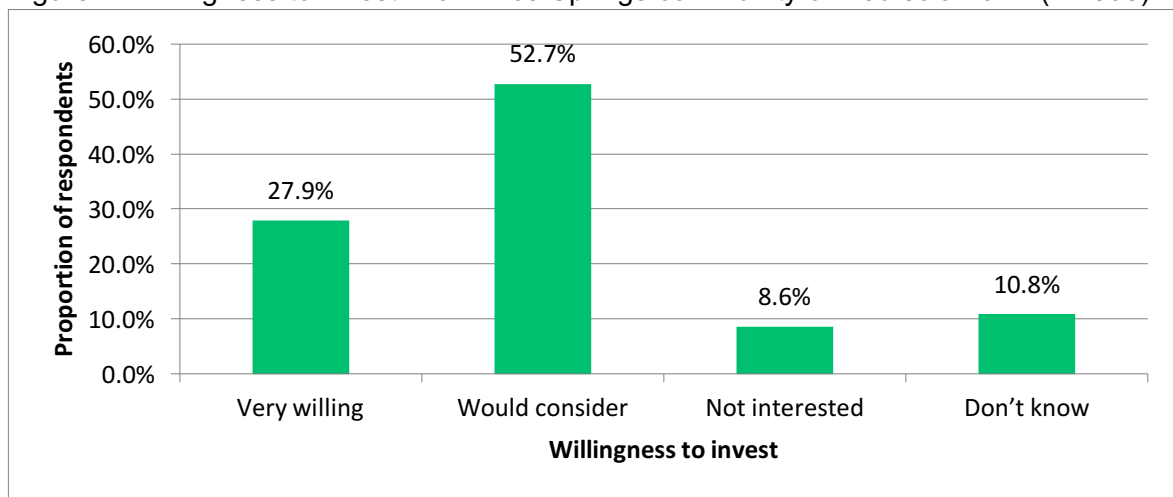


Respondents were asked whether they would consider investing in community solar and 27.9% responded that they are very willing. Results reflect that respondents recognise the need for medium and large scale renewable energy rather than on-going increases in household investment, because of the level of support for solar and willingness to invest despite over half of respondents not having solar on their own homes (57.9%) including both owned (36.4%) and rented homes (18.7%). Individuals and businesses alone do not have

capacity to realise the Visions of RePower Alice Springs of a community powered by renewable energy.

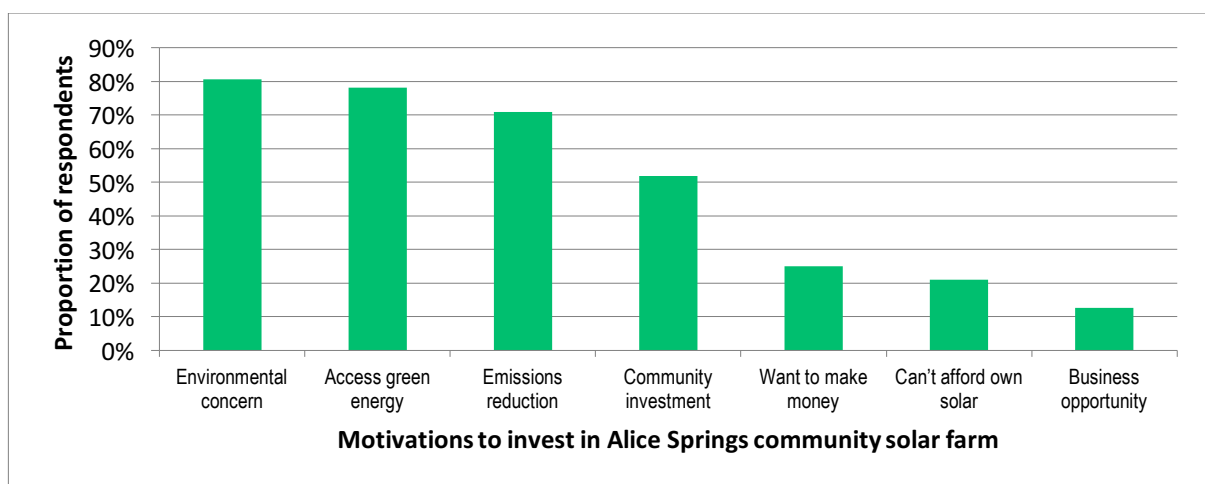
Figure 2 shows respondents willingness to invest in community owned solar farm, and the opportunity for RePower Alice Springs to work with 63.5% of respondents, or nearly 2/3 of respondents who don't know or would consider investing.

Figure 2: Willingness to invest in an Alice Springs community owned solar farm (n= 535)



The survey asked people about their motivations to invest in an Alice Springs community owned solar farm, and allowed multiple responses. Environmental concerns including access to green energy, emissions reductions were the most important, followed by community investment, and then economic issues which comprised wanting to make money, inability to afford own solar and a business opportunity.

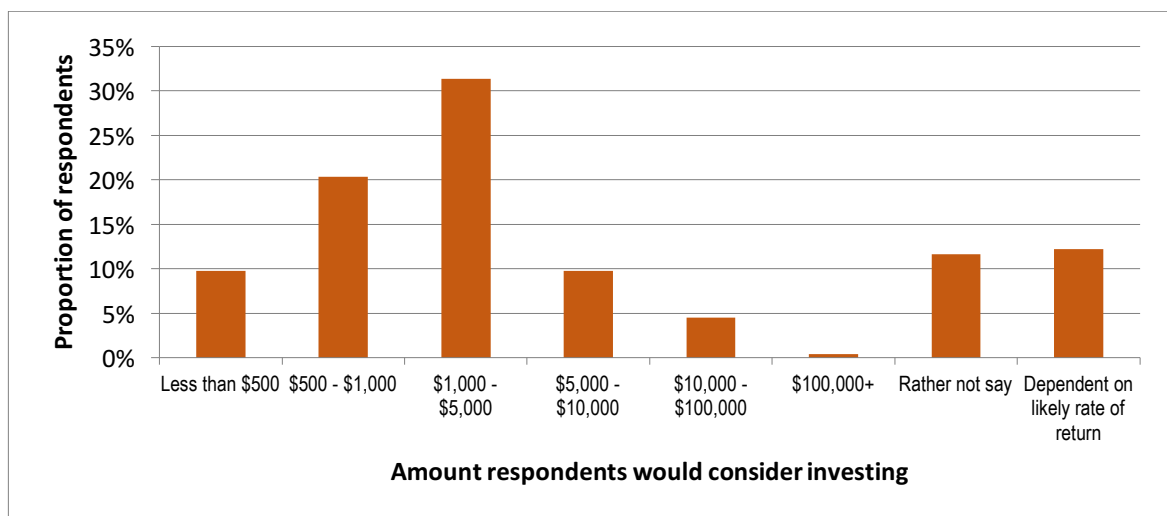
Figure 3: Motivations to invest in an Alice Springs community owned solar farm (multiple options, n= 494)



Respondents were asked how much they would invest in a community solar farm, and while results are based on unstated assumptions about the project they provide estimates of potential community resources. Assuming all respondents invested the minimum in their nominated range, \$855 000 would be available. If all invested the maximum nominated (except those with no maximum whose investment was considered at their nominated minimum of \$100 000) then \$3 750 000 would be available. A share price of \$3000 would attract half of respondents. Two respondents stated that they would invest over \$100 000. Both were home owners with existing solar power, males, in older age groups, and motivated by environmental concerns.

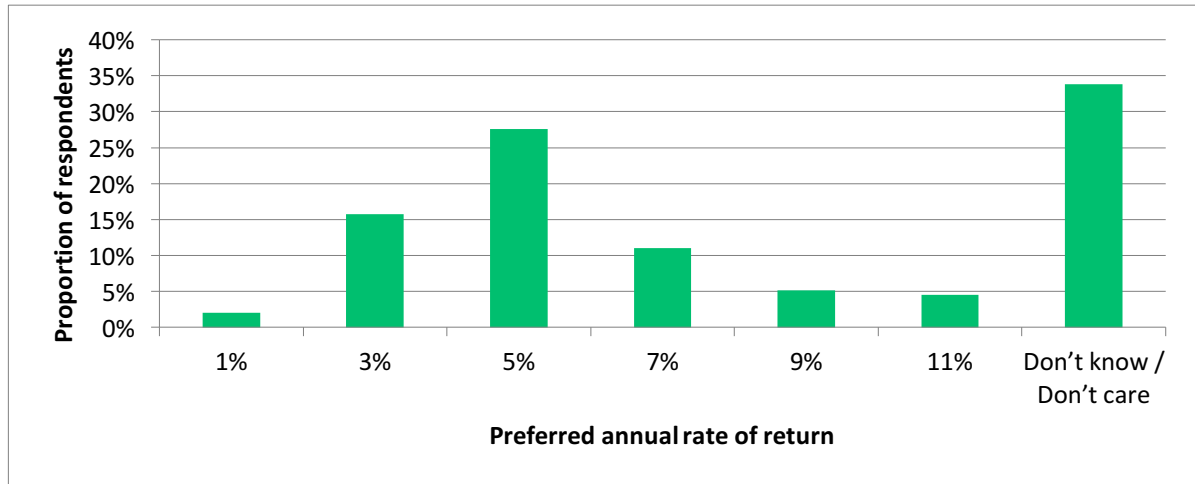
The most frequently nominated investment range was between \$1000 and \$5000 as shown in Figure 4. The largest proportion would invest between \$1000 and \$5000; this group was equally distributed between men (27.2%) and women (28.7%); but tended to be in the age groups above 35 years; and were more likely to be Alice Springs residents (31.0% to 14.0%; $P < 0.001$); see investment as an opportunity for local jobs (31.1% compared with 20.9%; $P < 0.001$); community ownership (31.4% to 23.4%; $P < 0.001$); greenhouse gas emissions reductions (30.6% vs 22.2%; $P < 0.001$) but no different from those seeking to invest other amounts in respect of concerns about reliability of energy supply (31.1% to 29.8%); or opportunity to seek local investment 30.5% to 30.8%. They were less likely than those who would consider investing more to think that new funding would emerge from the opportunity to invest in community solar (29.2% to 37.4%).

Figure 4: Amount respondents would consider investing in Alice Springs community solar farm (n= 482)



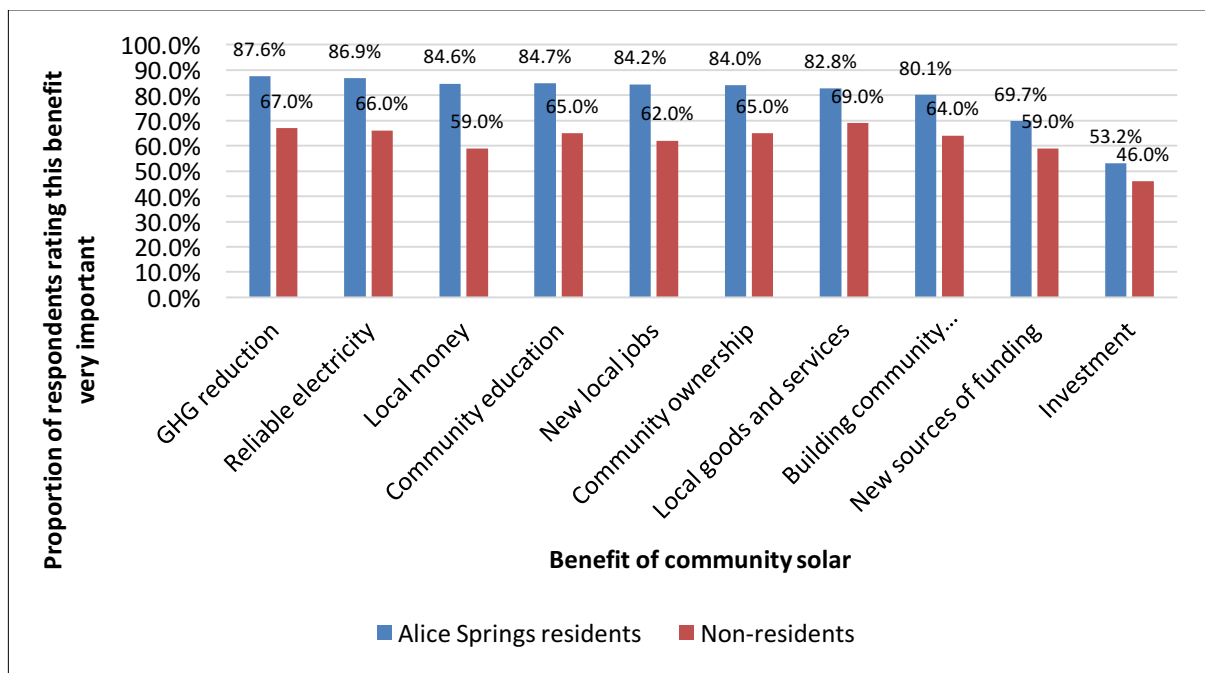
Most respondents were not concerned whether there was any government investment in a community solar farm. Moderate rates of return on investment were expected, with 5% being the most frequently nominated, shown in Figure 5.

Figure 5: Preferred annual rate of return over 10 year project lifetime (n= 482)



The survey asked respondents about the importance of benefits of community owned energy. Alice Springs residents were more likely to support environmental, local and community benefits, and these differences were statistically significant from those of other respondents ($P < 0.001$). Return on investment had lower importance than environmental or community development imperatives for both Alice Springs based and other respondents.

Figure 6: Very important benefits of community solar for Alice Springs residents (n= 442) and non-residents (n=100)



GHG = Greenhouse gas

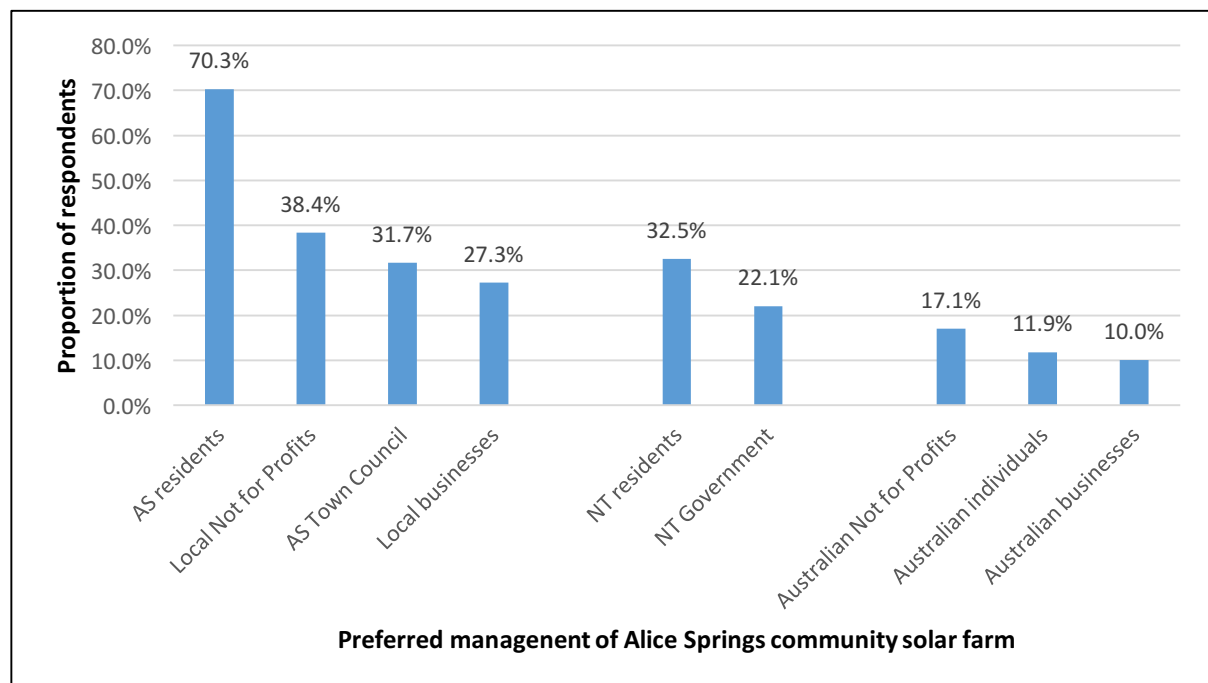
Compared with the 2017 RePower Alice Springs survey this shows an even higher emphasis on greenhouse gas emission reductions among Alice Springs residents. In the previous survey 78.3% of respondents gave reduction in carbon emissions as a main reason to increase solar power in Alice Springs, compared with 83.8% overall in the current survey.

Respondents placed lower priority on return on investment than on price of electricity, with 1.6% focusing on shareholder returns compared with 36% believing that solar farm should provide cheaper electricity; 62.4% believed that both are priorities.

Community ownership of electricity, with or without government or corporate partners, was important for 75.1%. Alice Springs residents (73.3%) appeared less likely to have confidence in community ownership than other respondents (82.5%): but the difference was not statistically significant ($P = 0.17$).

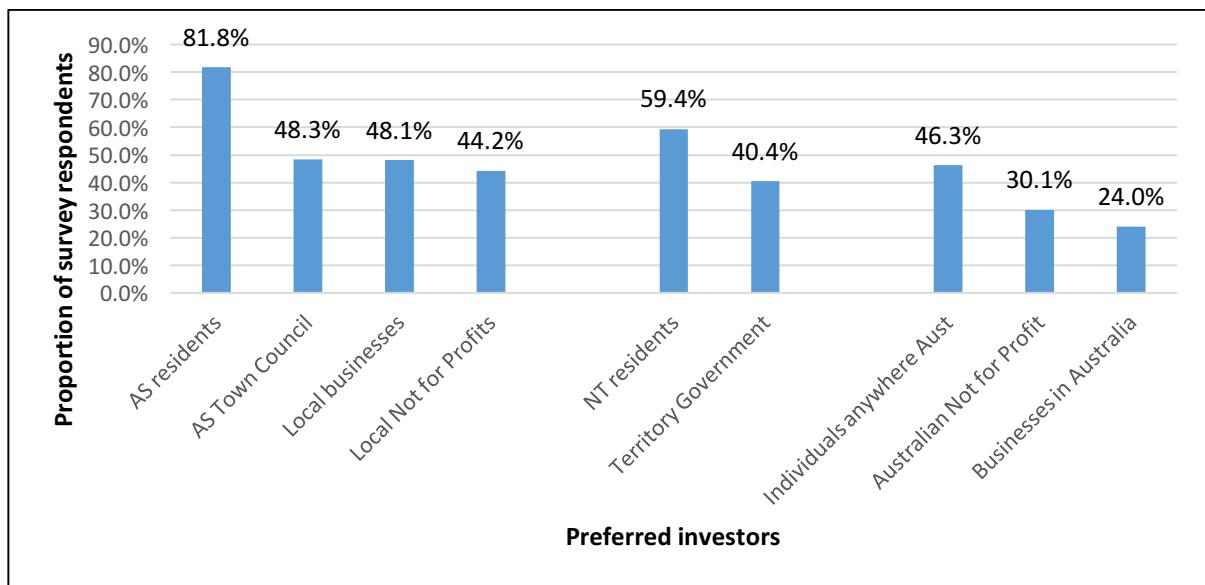
Respondents supported Alice Springs residents as the both investors and operators of an Alice Springs community solar farm, as shown in Figure 7 and 8. There was clear preference for local management and especially local investment.

Figure 7: Preferred management of Alice Springs community solar farm (multiple responses n=498)



AS = Alice Springs

Figure 8: Preferred investors in Alice Springs community solar farm (Multiple responses n = 495)



Discussion

From respondents to the survey, at least \$850 000 and potentially over \$3 million in community investments may be available from survey respondents for community solar in Alice Springs. Investment from others in Alice Springs is likely to also be significant, and if investment from elsewhere in NT or Australia was considered then a community farm could be entirely funded. Respondents provided a level of commitment to large scale solar despite the lack of details on the project. If a favourable business model was developed the investment may be at the higher end of the nominate range.

Survey respondents, particularly Alice Springs residents are concerned about the environment, greenhouse gas emissions, and access to renewable energy which is available for many other communities in Australia but not in Alice Springs except through off-grid arrangements.

Besides environmental concerns as a reason to invest in community solar, community development was important. This includes reliability of electricity, community ownership and education, and local ownership via investment, employment and services within the community. These were key issues for Alice Springs residents, and were significantly more important for Alice Springs residents than respondents from elsewhere.

Compared with other Australians Alice Springs residents are less likely to own their own homes, at 52% compared with 65.5% nationally; and more likely to rent (43.7% compared with 30.9% nationally). Respondents to the survey were more likely to own their home (70.6%) and less likely to rent (26.5%); they were also more likely to have solar on their home at 39.1% compared with 19% of all Alice Springs households and 24% of households Australia-wide (Australian Bureau of Statistics 2018, Clean Energy Council 2018).

With a higher than national rate of rental accommodation in Alice Springs there is a need for community solar to enable community members to hold control of their own energy systems, particularly for people who are unable or unwilling to buy solar panels for themselves. The survey by RePower Alice Springs in 2017 showed that over 40% of 606 landlords and over 60% of 171 tenants would like to put solar on their rental properties, on their but were unable to (RePower Alice Springs 2017). Both these groups are key investors for a community solar project. The largest group of survey respondents would consider investing between \$1000 and \$5000; this group was motivated by concern for local jobs and community energy, which may be key messages for promoting community solar investment in the large group of people who would consider investing in community solar but were not very willing.

Compared with environmental and community motivations, financial return on investment and government co-investment in the facility were less important for the respondents who stated that they would invest in community solar.

Conclusion

RePower Alice Springs should be optimistic about seeking investors in Alice Springs for a community solar farm; based on median amounts that respondents stated they would invest, the community may have adequate resources to fund the farm. Attracting potential investors should focus on key environmental and community development benefits of the project, to complement financial return on investment.

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