

# Inquiry into Alpine Energy Limited's decision to install solar equipment at a senior executive's house

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# Auditor-General's overview

E ngā mana, e ngā reo, e ngā karangarangatanga maha o te motu, tēnā koutou.

Trust and confidence in a public organisation is driven by competence, reliability, and integrity. Where there is any question about those things, real or perceived, trust and confidence can be quickly eroded.

Sensitive expenditure is one area in which integrity risks need to be carefully managed. Sensitive expenditure can involve an individual receiving a private benefit paid for out of public funds that is additional to the business benefit to the public organisation. There is a heightened sensitivity for this type of expenditure, and concerns can arise that the benefit is not appropriate or lacks a legitimate business reason. Public organisations need to be deliberate and diligent in their management of this kind of expenditure and, as with all spending, be able to justify it.

These issues arise regardless of the amount of money being spent. Even a small amount of public money being spent on sensitive expenditure can raise concerns if it appears to be improper. A sensitive expenditure decision has the potential to harm the reputation of the organisation as well as the public sector more generally.

## **The issues raised with us in this case**

This inquiry was prompted by concerns that were raised with us about procurement practices carried out by Alpine Energy Limited (Alpine Energy), a “public energy company” under the Energy Companies Act 1992.

The information we received included allegations about Alpine Energy and its procurement practices during the period 2013-2018, which raised questions for us about proper procurement practice, financial prudence, and probity.

One of those allegations was about Alpine Energy's decision to install solar energy equipment on an employee's house as part of a trial of solar energy. When the employee left the company, Alpine Energy sold the solar equipment to the employee for much less than it cost to install. Regardless of the amounts of money involved, this raised questions for us about whether Alpine Energy had properly managed the risks around sensitive expenditure. In this case, installing the solar equipment on the employee's house appeared to have conferred a personal benefit on the employee, while the benefit to Alpine Energy was unclear. Our initial view was that this arrangement appeared unusual and, as a result, we decided to carry out an inquiry under section 18 of the Public Audit Act 2001.

## The installation of the solar equipment

Our inquiry showed that some of the questions we had about the expenditure could be answered quite easily. For example, we saw no evidence that the solar equipment was installed on the employee's house as part of a recruitment or employment package. Our inquiry found that the installation had a legitimate business purpose, in that it was conducted as part of a trial of solar energy being carried out by the company as part of a general interest in renewable energy, that the arrangement was fully disclosed to the Board, and that it was agreed from the outset that the employee would purchase the solar equipment at the end of a three-year trial period, with the price to be calculated on the basis of a pre-agreed formula.

Although some of our concerns were resolved, others remain. We found that Alpine Energy did not manage this expenditure as well as it could have done and did not always follow principles of good practice, as expected of public organisations.

Alpine Energy did not explicitly recognise the expenditure as sensitive expenditure. Therefore, it is not able to demonstrate what steps it took at all stages of its decision-making to mitigate the risks associated with the fact that it was incurring sensitive expenditure. Alpine Energy could have taken steps to better support the sensitive expenditure, including:

- weighing the costs and benefits of other ways of running the trial (so it had a documented record of why it installed the solar equipment on the employee's house);
- explicitly considering how it would deal with any conflicts of interest that might arise; and
- weighing up the costs and benefits of ending the trial sooner once it became evident that it might not be able to collect any data from the trial. Ultimately the trial was largely unsuccessful and the trial was put on hold until the equipment was sold to the employee.

When calculating the final sale price, Alpine Energy deviated from the original agreement that was made. There are a number of aspects of the supporting calculations that were inexplicable or that we do not agree with. For example, Alpine Energy replaced known cost of the equipment with an estimated cost. Using these amounts produced a lower sale price than if known amounts had been used. In our view, the starting point for determining the recognised value of the assets can only be the actual cost, as depreciated from the date that the solar equipment was installed, until the date of disposal.

There is also a general lack of written documentation, either to support and explain why Alpine Energy deviated from the original agreement or to substantiate the judgements that Alpine Energy made. Any decision to deviate from the original agreement should have been clearly documented at the time.

It is also not clear that Alpine Energy sought to maximise its return on the sale of the solar equipment to the employee and recognised the potential for actual or perceived advantage to that employee, both of which are expected for sensitive expenditure such as this. Alpine Energy did seem to be aware that it could not be seen to provide the solar equipment to the employee for nothing.

However, it appears to us that the price Alpine Energy was looking to find for the sale was a low and acceptable amount to the employee, rather than one that also sought to maximise the return to the company and would be seen to be fair and reasonable. This approach might have contributed to concerns that the employee appeared to be enjoying a personal benefit.

### **Other issues**

One other allegation was that Alpine Energy had no procurement policy during the period or, if a policy did exist, it was not consistent with principles of good practice as applied to public entities. In relation to this allegation, the company confirmed that it did not have a procurement policy in place from 2013 to 2018. However, it said it did have some elements of procurement covered in other policies, and that it was in the process of developing a procurement policy during that period. Alpine Energy has subsequently adopted one, effective from 31 March 2019. In our view, a procurement policy is a foundation policy for all public organisations and we expect all public organisations to have one.

Another allegation was that some significant contracts were not negotiated on a contestable basis. For those we examined, the company was able to provide a satisfactory explanation for the procurement approach taken.

It was also said that Alpine Energy's resources, including staff time, may have been used to procure goods or services for employees' personal benefit. From the work we did, we found no evidence of these practices being common or widespread.

### **Sensitive expenditure needs to be carefully considered**

The types of sensitive expenditure we come across in the public sector generally relate to travel, accommodation, hospitality, or use of company equipment. This case involved a relatively unusual type of sensitive expenditure that we are not

likely to come across often. We are currently carrying out work to update our guidance on sensitive expenditure, which will include our updated views and reiterate principles such as those we discuss in this report.

However, this case serves as a useful reminder to all public organisations, regardless of their activities, size, or location. Even for commercial entities in the public sector, the appropriate treatment of sensitive expenditure is an important area and one in which vigilance is required, to manage perceived and substantive benefits.

When spending public money, public organisations should think carefully – not just about whether that expenditure can be justified to internal stakeholders, but about how the expenditure will look to a reasonable outsider. We say this not to stifle innovation or hinder legitimate commercial decisions, but in the interests of ensuring that public organisations do not inadvertently undermine public trust in them, or in the integrity of the public sector more generally.

We accept that giving careful attention to how sensitive expenditure will look to a reasonable outsider might require more time, effort, and documentation than other types of expenditure. Although that might use resources, those resources will be less than a public organisation would have to use if it lost the public's trust and confidence through poorly managing sensitive expenditure.

I thank Alpine Energy and those who contributed to our work for their co-operation in the course of our inquiry.

Nāku noa, nā

A handwritten signature in black ink, appearing to read 'JMRyan', with a stylized flourish at the end.

John Ryan  
Controller and Auditor-General

19 December 2019

# Introduction

- 1.1 In August 2018, we received information that raised concerns about Alpine Energy Limited (Alpine Energy) from 2013-2018.
- 1.2 Alpine Energy is a “public energy company” under the Energy Companies Act 1992. It is subject to audit by the Auditor-General under the Public Audit Act 2001. We also expect it to follow the good practice principles that apply to public organisations, including those set out in good practice guides that we publish.
- 1.3 The information we received included allegations that, from 2013-2018, Alpine Energy was not following good practice when carrying out its procurement activities. The allegations were that:
  - Alpine Energy had no procurement policy from 2013-2018, or, if a policy did exist, it was not consistent with the principles of good practice;
  - some significant contracts were not negotiated on a contestable basis;
  - Alpine Energy’s resources, including staff time, might have been used to procure goods or services for employees’ personal benefit; and
  - a photovoltaic (solar) installation was fitted to the house of a senior executive during the period, at Alpine Energy’s expense, without any clearly documented business case or rationale.
- 1.4 The nature of the allegations raised questions for us about proper procurement practice, financial prudence, and probity.
- 1.5 We were able to deal with the first three allegations relatively easily. With the fourth allegation, installing solar equipment on the home of a senior executive (the employee), Alpine Energy confirmed that it did pay for the installation at the house of the employee. It was done as part of a trial of solar energy. When the employee left Alpine Energy, the solar equipment was sold to them. We discuss our findings on these allegations in more detail in Part 3.
- 1.6 Our initial view was that these arrangements were unusual for a public organisation and warranted further investigation. Our main concern was that they involved “sensitive expenditure”. Sensitive expenditure is the term we use to describe any expenditure by a public organisation that could be seen to give a private benefit to an individual employee, in addition to the business benefit gained by the public organisation.

- 1.7 We refer to this type of expenditure as sensitive expenditure because there is heightened public sensitivity about it. The sensitivity is not always about the amount of money involved. Although sensitive expenditure can sometimes involve relatively small amounts of money, it is more about the perception that an individual:
- might have benefitted personally from public money being spent without there being a legitimate business reason for that expenditure; or
  - might have benefitted disproportionately from the expenditure at the public's expense.
- 1.8 Failing to properly manage and account for sensitive expenditure can quickly erode public trust and confidence in both the public organisation and the public sector.
- 1.9 Areas where sensitive expenditure is commonly incurred are travel, accommodation, and hospitality. Other examples of sensitive expenditure are where an individual is permitted to use a public organisation's assets (such as a phone or laptop) or suppliers for personal use or where a public organisation disposes of surplus assets (especially if the disposal is by way of a sale to employees or other individuals related to the organisation).
- 1.10 In our 2007 good practice guide *Controlling sensitive expenditure: Guidelines for public entities*, we say sensitive expenditure decisions should:
- have a justifiable business purpose;
  - preserve impartiality – that is, be made in such a way that they are not seen to favour a particular individual or individuals;
  - be made with integrity;
  - be moderate and conservative, having regard to the circumstances;
  - be made transparently; and
  - be appropriate in all respects.
- 1.11 We expect all public organisations to be familiar with these principles and to have suitable policies and procedures for identifying and managing sensitive expenditure. We also expect those in senior management or governance roles to set an appropriate tone from the top.
- 1.12 In this case, installing the solar equipment on the employee's house appeared to have conferred a personal benefit on the employee, while the benefit to Alpine Energy was unclear. As a result, we decided to carry out an inquiry under section 18 of the Public Audit Act.



## Scope of the inquiry

- 1.13 Our inquiry focused on the decision-making, monitoring, and management processes relating to the installation of the solar equipment on the employee's house.
- 1.14 In carrying out the inquiry, we:
- wrote to Alpine Energy asking questions about its decision to pay for and install solar equipment at the home of the employee;
  - obtained and considered documentation about Alpine Energy's decision to pay for and install solar equipment at the home of the employee;
  - interviewed Alpine Energy's Chief Executive and the employee; and
  - visited the employee's house.
- 1.15 Particular issues we wanted to understand were:
- why Alpine Energy entered into the arrangement with the employee;
  - whether the arrangement was connected in any way with the employee's recruitment and employment;
  - what the arrangement between Alpine Energy and the employee was;
  - what benefit Alpine Energy got out of the arrangement;
  - what benefit the employee got out of the arrangement;
  - whether Alpine Energy got a fair price for the solar equipment it sold to the employee; and
  - overall, whether Alpine Energy had properly managed the risks from the sensitive expenditure.

## Structure of this report

- 1.16 In Part 2, we describe the background information on the solar installation.
- 1.17 In Part 3, we discuss our findings about the solar installation and other matters.

# 2

## About the solar installation

2.1 In this Part, we describe:

- Alpine Energy's interest in solar energy;
- the arrangement with the employee;
- what Alpine Energy told the Board about the solar energy trial;
- the agreement between Alpine Energy and the employee;
- the installation process;
- the solar energy trial; and
- how Alpine Energy calculated the sale price of the solar equipment.

### **Alpine Energy's interest in solar energy**

2.2 We were told that, in July 2012, Alpine Energy was in the early stages of establishing a photovoltaic trial at a substation that it owned in Tekapo. Photovoltaic energy involves the use of photovoltaic (solar) cells to convert sunlight directly into electricity.

2.3 Alpine Energy said the specific purposes of the trial were to test the equipment in a range of weather conditions and to enable the company to gather data to be used in electricity network modelling. The trial's broader purpose was to help Alpine Energy understand how solar energy affected network load flow forecasts, power quality, and future revenue.

2.4 The trial involved installing solar panels and an inverter<sup>1</sup> at the Tekapo substation and was intended to last for one year.

2.5 Alpine Energy's Chief Executive told us that the Tekapo trial did not include a formal proposal to the Board. This was because it was a low-cost trial that was covered under existing budgets and within the Chief Executive's delegated authority. He said Alpine Energy did not have an explicit strategy in relation to renewable energy. However, the Board considered it had an obligation, as an energy company, to explore new technologies, both in their own right and in order to understand their effect on existing technologies.

### **The arrangement with the employee**

2.6 At about the same time the Tekapo trial was being planned, Alpine Energy appointed the employee as a senior executive.

2.7 The Chief Executive told us he became aware that the employee was building a new house and thought this presented an opportunity for Alpine Energy to extend the solar trial at the Tekapo substation by installing similar technology on a residential property. The Chief Executive told us there was little "science" behind

<sup>1</sup> An inverter is equipment that converts the type of current produced by the solar panels (direct) to the type used in the residential electricity system (alternating).

this idea and that it was really more a case of an opportunity presenting itself that he thought might benefit the company.

- 2.8 We asked whether Alpine Energy had considered other ways of carrying out a trial on a residential property. The Chief Executive told us he would have considered another employee's house, if there had been one, but that he was not aware of any other employees being in the process of constructing a new house at that time.
- 2.9 The Chief Executive also said he believed that there would be advantages to installing the solar equipment on an employee's house instead of a third party's property, because:
- it might be easier for Alpine Energy to access the solar equipment for monitoring purposes; and
  - there were likely to be fewer issues to deal with if Alpine Energy needed to repair damage to, or reinstate, the property once the trial was over.
- 2.10 The Chief Executive approached the employee about installing the solar equipment on the employee's house. The employee told us that they were open to the idea, provided that Alpine Energy paid for the installation and operating costs of the trial. The employee also told us that there was a covenant applying to the location where the house was being built that prohibited reflective items being placed on the roof. Because of this, solar tiles would need to be used instead of the type of solar panels being used for the Tekapo substation trial.
- 2.11 Discussions took place between the Chief Executive, the employee, NETcon International Limited,<sup>2</sup> and a private supplier. We explain their roles in paragraph 2.21. These discussions proceeded to a point where a draft scope document was prepared and an in-principle decision was made to carry out another solar trial (that is, in addition to the Tekapo substation trial) by installing solar equipment on a residential house.

## What Alpine Energy told the Board about the solar energy trial

- 2.12 In May 2013, the Chief Executive presented a memo to the Board to inform it of this decision. The Board was told that:
- the trial was expected to last three years and to cost about \$37,000;
  - the trial would involve installing solar tiles, a battery bank, an electric vehicle charging station, and an in-house display unit on a new private residential dwelling owned by an Alpine Energy employee; and
  - at the end of the three-year trial the solar equipment would be sold to the Alpine Energy employee.

<sup>2</sup> NETcon International Limited (now known as Infratec) is a wholly owned subsidiary of NETcon Limited, which is in turn wholly owned by Alpine Energy.

- 2.13 The memo explained that, because the costs for the trial would be covered by existing budgets, Board approval was not needed. However, the matter was being brought to the Board's attention due to the relationship between Alpine Energy and the employee.
- 2.14 The employee was present at the meeting. The minutes of the meeting record that the employee declared a conflict of interest and took no part in the discussions. However, we understand that the employee remained in the meeting for a valid but unconnected reason.
- 2.15 In his memo to the Board, the Chief Executive explained the technical factors the residential trial was expected to look at:
- Using integrated battery storage to minimise the export of excess power into the grid and deferral of solar energy to meet evening customer peak demand periods.
  - Considering the impact of using stored solar energy on a typical pattern of residential electricity use.
  - Considering whether the battery system could be called on to feed electricity into the electricity network to help manage the peaks and troughs in demand (for network load management purposes).
  - Assessing the potential impact of solar inverters on network power quality, including the impact on distortions in the frequency of current and voltage (the "harmonic" impact) caused by devices such as battery chargers that create abrupt short electricity pulses.
  - Assessing the potential for clusters of houses with solar panels in low-load conditions to reverse network flows, impact on voltage stability, and exceed the distribution system capacity. That is, assessing what effect there is on the network when power is pushed back into the grid (when the electrons flow in the opposite direction).
  - Ensuring that grid connected/solar battery systems have appropriate protection to prevent "back feed" into the network during a system fault.
  - Assessing whether smart meters and in-home displays modify customer behaviour.
  - Considering future integration of electric vehicle charging in the home and how this might work with a solar/battery system.
  - Assessing the integration of solar power as part of a new house build (as opposed to retrofitting).

2.16 The memo also outlined the terms of the proposed agreement between Alpine Energy and the employee (see paragraphs 2.18 and 2.19). The memo concluded that, unless otherwise instructed, management intended to begin the trial in 2013/14.

2.17 The minutes of the meeting record that the Board noted the memo. No objections were recorded.

### The agreement between Alpine Energy and the employee

2.18 The Chief Executive told us that there was no formal agreement between Alpine Energy and the employee for the trial. He said this was because he did not consider a signed agreement to be necessary for a \$37,000 project. Instead, the terms of the agreement were set out in an exchange of emails between the Chief Executive and the employee.

2.19 The terms of the agreement (as set out in the emails) were that:

- the solar equipment would be incorporated into the new house at Alpine Energy's cost;
- Alpine Energy would have the right to access the solar equipment during normal working hours after giving reasonable notice;
- Alpine Energy would have the right to read, interrogate, and analyse the consumption and load storage data from the solar equipment. This would be done predominately by means of remote reads, real time, anytime;<sup>3</sup>
- Alpine Energy would be responsible for maintaining the solar equipment;
- Alpine Energy would be responsible for arranging insurance cover for the solar equipment;
- either party had the right to seek to remove permanently the solar equipment on reasonable notice. Alpine Energy would then be responsible for making right the property;
- Alpine Energy would run the trial for three years;
- Alpine Energy had the right to connect an electric vehicle to the solar storage (at its cost); and
- at the end of the trial period, Alpine Energy would sell the solar equipment to the employee at half the depreciated book value or the price for a modern equivalent system, whichever was lesser.

2.20 We were told by Alpine Energy that, at the time of the agreement, the intention was that the final price would be half of the book value or *half* of the price of a modern equivalent system, whichever was less.

3 For example, using a smart meter to enable real-time usage data to be accessed remotely through web portals and/or mobile phone applications.

## The installation process

- 2.21 The installation was project managed for Alpine Energy by NETcon International Limited. A private supplier designed the installation and supplied the parts.
- 2.22 The solar equipment was installed in stages as the house was built. We understand that the installation was expected to have been completed and the equipment operational by April 2014. This is based on the information provided to the electricity provider for connection purposes.
- 2.23 However, installing and completing the system was significantly delayed. This was because of several factors, including:
- required changes to the architect's designs for the house and an amendment to the building consent application, as a result of including the solar tiles;
  - delays in the overall building process;
  - delays because of a decision to change the type of batteries that were installed and the associated changes required, in relation to how and where the battery unit would be housed at the property; and
  - switching to an integrated battery and inverter unit due to software compatibility problems between the original independent units.
- 2.24 Based on the information that we have been provided with, the installation was finally completed and the solar equipment became operational by the end of May 2015. By operational, we mean that the solar tiles on the roof and the associated wiring were capable of generating energy that the household could use. This corresponds with when Alpine Energy capitalised the associated costs and started to depreciate the assets.

## The solar energy trial

- 2.25 The Chief Executive told us that the trial was largely unsuccessful. He explained that this was because, at the time of the trial, the technology was very new and there were significant problems with it malfunctioning.
- 2.26 Examples of the operating problems we were told about included:
- the battery unit not working, such that any additional power generated was not stored for later use;
  - a clicking noise when the electric hob was used at the same time as the electric vehicle was charging; and
  - the battery charging from the grid at night (that is, when there was no solar power, rather than either charging during daylight hours or drawing from stored power).

- 2.27 The Chief Executive told us that Alpine Energy incurred costs in attempting to repair the technology, and that no useful data was obtained from the project. He said he initially decided to continue the trial because of the potential for new technology to emerge that could readily replace the current technology and fix the performance problems. However, ultimately the costs of repairing the monitoring technology outweighed the probable benefit and, given the escalation of costs, he decided to put the project on hold, rather than terminate it.
- 2.28 Both the employee and the Chief Executive told us that they considered invoking the provision in their agreement that allowed either party to seek to remove the equipment on reasonable notice. This would have triggered an obligation on the part of Alpine Energy to make good the property.
- 2.29 The Chief Executive told us that, although he considered this option, he elected not to pursue it. This is because he continued to believe an opportunity might arise in the future to change or update the equipment to get the data that Alpine Energy had wanted.
- 2.30 The Chief Executive said that, in putting the project on hold, the intention at the time was to continue to research solar technology but to do it using the next generation of solar panel hardware. He said this work has not occurred because research papers from overseas provide more meaningful data at no cost to Alpine Energy.
- 2.31 Alpine Energy's research on solar energy and battery storage has continued through NETCon International Limited (one of the companies in its group, now known as Infratec). Infratec designs, supplies, and installs commercial scale solar plants and battery storage systems in New Zealand, the Pacific, and Southeast Asia.

### Ending the trial

- 2.32 In August 2017, the employee emailed the Chief Executive to ask about purchasing the solar equipment. In that email, the employee asked the Chief Executive to come back with a proposal based on the following factors:
- The initial estimated cost of the installation was about \$10,000.
  - The cost was to be depreciated over four years.
  - It was intended that the employee would purchase the solar equipment from Alpine Energy after the third year.
  - The actual cost was \$51,871, which was being depreciated over five years from 30 June 2015.
  - The system was not performing in the way they initially thought it would and was different to the one that was originally installed.

- 2.33 It is not clear where the employee got the figure of \$10,000 for the initial estimated cost. The original estimated cost of the trial, according to the memo presented to the Board, was \$37,000. However, we found reference in the documents we were given to an earlier estimate for an alternative system for \$10,000. This alternative system did not include batteries.
- 2.34 It is also not clear where the reference to depreciating the solar equipment over four years comes from. The agreement between the employee and Alpine Energy set out two values that would be used for determining the price at which the employee would purchase the solar equipment at the end of the three-year trial period. However, the agreement does not specify a depreciation rate. The assets were depreciated over five years in Alpine Energy's financial system.
- 2.35 In any event, it appears the employee's query about buying the solar equipment did not come to anything. We understand this was because at that point, Alpine Energy believed there might still be a possibility of getting the technology to work and therefore collect useful data from it. The solar equipment remained on the employee's house, with the trial still running (although no data was collected), for another year.
- 2.36 In August 2018, the employee announced that they would be leaving Alpine Energy and that their final day of work would be in March 2019. In both September 2018 and November 2018, the employee again raised the matter of transferring ownership of the installation. In correspondence, the employee refers to a previously agreed price of \$3,000, although the employee was uncertain about whether that price was inclusive or exclusive of goods and services tax (GST).
- 2.37 In December 2018, the employee purchased the solar equipment from Alpine Energy for \$3,000 excluding GST. Payment was made when the sale price was deducted from the employee's pay in January 2019.

## **Costs of the trial**

### **Capitalised costs**

- 2.38 Based on the information we have seen, the total capital cost of the installation was \$51,871.58. The total included the elements shown in Figure 1.



**Figure 1**  
**Elements of the capital cost of the installation**

Element	Description	Cost (excl GST)	% of total cost
Power router and battery system	Power router 3kW self-use version Battery enclosure 208 Ah @ 24 volt PHET battery bank AC, DC cabling Signage Switches, isolators, and cable protection Freight Cable containment	\$36,203	70.0
Integrated solar tiles	40 x C21 tiles and associated mounting hooks and soaker trays	\$7,592	14.5
Associated labour	Includes: <ul style="list-style-type: none"> <li>Electrical installation</li> <li>Prepare and batten roof for tile fixings</li> <li>Fixing of tiles and installation of soaker trays</li> </ul>	\$4,655	9.0
Architect's fees	For the design of solar panel installation, further drawings, and preparation of building consent application amendment	\$3,139	6.0
Council fees	For the amended building consent application process	\$283	0.5
		<b>\$51,872</b>	<b>100%</b>

Note: The costs of the electric vehicle charging unit (\$500 excluding GST) have not been included in the total amount that Alpine Energy capitalised.

- 2.39 The original estimated cost of the installation, as communicated to the Board, was \$37,000. This was based on early quotes received at the initial discussion stages. The cost overrun appears largely because of the subsequent decision to change the type of battery used in the installation.
- 2.40 Our understanding is that any delay and/or additional cost directly attributable to the solar installation and decisions made by Alpine Energy were added to the overall cost of the solar equipment. For example, Alpine Energy paid the fee needed to amend the building consent application.

2.41 Conversely, where the relationship between any delay or cost increase was less directly attributable to the solar installation, there might have been other additional costs that were not covered by Alpine Energy. For example, the employee told us that they did not seek to recover costs associated with having to remain in rented accommodation for longer than originally anticipated as a result of delays caused by the installation of the solar equipment.

**Operating and maintenance costs**

2.42 Under the terms of its agreement with the employee, Alpine Energy was responsible for the solar installation's operational costs.

2.43 These do not appear to have been separately recorded and in some instances might not have been separately identifiable. For example, insurance for the solar installation appears to have been covered under Alpine Energy's overarching policy and, therefore, there was no specific or additional premium that related to the solar installation.

2.44 We understand, however, that the actual ongoing operating and maintenance costs associated with the installation were minimal.

**How the sale price of the solar equipment was calculated**

2.45 In the original agreement between Alpine Energy and the employee, Alpine Energy agreed to sell the solar equipment to the employee at the end of the three-year trial period for "half the depreciated book value or the price for modern equivalent – whichever is lesser".

2.46 We were told by Alpine Energy that, the intention was that the final price would be half of the book value or half of the price of a modern equivalent system, whichever was less.

2.47 In the end, this was not the formula used to calculate the sale price, which we understand was agreed informally through verbal discussions and email messages.

2.48 We were told that the actual sale price of the solar equipment was the mid-point between "the estimated depreciated value of the panels" and "the cost of a modern equivalent."

2.49 The Chief Executive told us that determining the sale price was "not an exact science" but was based on consideration of the following:

- The estimated depreciated value was based on the estimated cost of installing the solar equipment at the time the agreement was entered into (that is \$37,000), and a useful life of five years (from the estimated start date of July 2013), resulting in an estimated depreciated value of \$0.

- To work out the cost of a modern equivalent system, Alpine Energy used an estimate for a small residential system obtained in May 2018. That price was between \$3,500 and \$5,000. The Chief Executive told us it was assumed that the cost of a modern equivalent system would not include batteries because, if Alpine Energy were to run a similar trial again, it would not include batteries.
- The Chief Executive said the sale price for the solar equipment also followed a “rough rule of thumb” in the industry at the time relating to the cost per kilowatt of generating power. However, we have not been provided with any independent evidence or documentation to support this aspect of the calculation.

2.50 We were also told that, if no agreement on price could be reached, Alpine Energy would be required to remove the equipment and “make good” the employee’s house.

# 3

## Our findings

- 3.1 In this Part, we discuss our findings about the four allegations that:
- Alpine Energy had no procurement policy;
  - some of Alpine Energy's significant contracts were not negotiated on a contestable basis;
  - Alpine Energy might have used resources, including staff time, to procure goods and services for employees' benefit; and
  - a solar energy trial was carried out without any clearly documented business case or rationale.

### **Alpine Energy had no procurement policy**

- 3.2 The first allegation was that Alpine Energy did not have a procurement policy from 2013 to 2018, or, if a policy did exist, it was not consistent with good practice principles.
- 3.3 Alpine Energy confirmed that it did not have a procurement policy in place from 2013 to 2018. However, it said it did have some elements of procurement covered in other policies, and that it was in the process of developing a procurement policy during that period. Alpine Energy has subsequently adopted a procurement policy, effective from 31 March 2019.
- 3.4 We decided that we did not need to do further work on that issue as part of our inquiry because, through the Office's work programme theme *Procurement*, there was already an increased focus by the auditor on procurement policies and practices.

### **Some significant contracts not negotiated on a contestable basis**

- 3.5 The second allegation was that some significant contracts were not negotiated on a contestable basis.
- 3.6 In response to this allegation, Alpine Energy provided us with information about its procurement of various services that we asked about. Our review of that information showed that some of these services had been obtained on a contestable basis (for example, banking services, the asset management system, and insurance services) and some had not (for example, air travel services and earth-moving services).
- 3.7 For those services that were not obtained on a contestable basis, Alpine Energy provided an explanation for its procurement approach, which we considered to be satisfactory. For example, there might have been only one supplier or the supplier had continued to offer services at rates agreed under all-of-government contracts, despite no longer being on the all-of-government panel(s).

3.8 Alpine Energy was also not required to comply with the *Government Rules of Sourcing* in force at the time.<sup>4</sup>

### Using company resources and staff time to procure goods or services for employees' personal benefit

3.9 The third allegation was that Alpine Energy's resources, including staff time, might have been used to procure goods or services for employees' personal benefit.

3.10 We established that:

- Alpine Energy has a policy that enables employees to obtain goods through the company, with the costs of those goods then being deducted from the employee's pay;
- on at least one occasion, a member of staff used a company purchasing card to obtain goods for their personal use. They reimbursed Alpine Energy for the cost of the goods before it was billed for those goods. We were told that this happened because of a misunderstanding between employees; and
- in the past, at least one member of staff spent time researching the prices of goods at the prices available to Alpine Energy, with the possibility of those goods then being obtained for another employee's personal use. We saw evidence of an employee being asked to research prices by another employee. We were also told that an employee offered to do this for another employee.

3.11 We saw no evidence that these practices were common or widespread. In particular, we saw no evidence of employees actually procuring any goods through Alpine Energy using the terms and conditions of purchase available to Alpine Energy based on the research used by another employee.

3.12 Researching prices by a public organisation's staff, and any processing of purchases by the organisation for staff personal use, is using public resources to benefit staff. In the instances we saw, the value of staff time used for those purposes was likely to be small.

3.13 Our guidance has some principles about the private use of a public organisation's suppliers, including setting value and quantity limits, and monitoring use to avoid any risk the use might influence future procurements with that provider. These principles are intended to help public organisations reduce the risk that individual employees might be able to personally benefit from specially negotiated rates, which in some instances, might be commercially sensitive. The principles are also intended to help public organisations protect themselves from allegations that

<sup>4</sup> The *Government Rules of Sourcing* were the standards for the sourcing stage of procurement in force at the time. They were replaced by the *Government Procurement Rules* on 1 October 2019. Alpine Energy is still not required to comply with them. See [procurement.govt.nz](http://procurement.govt.nz).

procurement decisions are influenced by the potential benefits that employees might receive as a result.

- 3.14 However, there is no specific guidance about the staff time spent on researching or processing that personal use. We intend to consider this point as part of updating our guidance on sensitive expenditure.
- 3.15 In the meantime, this is, in our view, an area that organisations should consider carefully, particularly the perception of inappropriate personal benefits and the risk that staff time is being used to serve their personal interests rather than those of the organisation.

### The solar energy trial

- 3.16 As noted in Part 1, the main reason we carried out our inquiry was to address concerns about the solar installation at an employee's house and questions this raised for us about sensitive expenditure.
- 3.17 The type of sensitive expenditure in this instance was unusual because it does not fit any of the categories of expenditure specifically addressed in our guidance. However, it was clearly expenditure with the potential to result in benefits (many of which are not readily quantifiable) for both Alpine Energy and the employee and was therefore sensitive expenditure.
- 3.18 The benefits to Alpine Energy were the opportunity to run a trial of solar equipment and collect data that might be of use to the company at a relatively low cost and with relatively low risk, in particular if the trial was unsuccessful.
- 3.19 The benefits to the employee were:
- Their house being one of the first in New Zealand to have the latest technology integrated solar tiles installed.
  - Solar tiles on their house to generate power during the day.
  - An electric vehicle charging station.
  - Potentially having the means of storing unused power generated during the day for later use.
  - The right to purchase the solar equipment at the end of the trial.
- 3.20 Concerns about the sensitive nature of the expenditure were heightened because:
- The employee involved was a senior employee. This increased the risk that they would be seen to be benefitting personally because of their position in Alpine Energy.
  - The trial was not successful. This meant Alpine Energy could not show that it got any real benefit from the expenditure.

- The price the employee paid for the solar equipment at the end of the trial was less than 10% of its cost. Together with the lack of clear benefit to Alpine Energy, this creates a perception that the employee has benefitted disproportionately from the expenditure at Alpine Energy's expense.

### Our view

- 3.21 Based on the information we have been given, we are satisfied that the expenditure in this case had a legitimate business purpose and that it was not expenditure incurred for the primary purpose of benefitting the employee. In particular, we saw no evidence that the installation was part of the employee's recruitment package or an attempt to avoid scrutiny of the expenditure as sensitive expenditure.
- 3.22 There are other ways Alpine Energy could have carried out a solar energy trial – such as finding and entering into an arrangement on an arm's length basis with a private individual – that might not have given rise to the same concerns about sensitive expenditure. However, we accept that other approaches might have been more complicated and carried more risk for Alpine Energy, particularly if the trial was not a success, as was the case here.
- 3.23 We are also satisfied that those involved in the transaction were, to some extent, alert to the sensitive nature of the expenditure. This is evident in the Chief Executive's decision to tell the Board about the proposal, even though this was not required (because the Chief Executive had the delegation to approve the trial). The employee's declaration of a conflict of interest at the Board meeting when the expenditure was discussed, and the fact that related invoices were approved by the Chief Executive, also show that those involved were alert to the sensitive nature of the expenditure.
- 3.24 Nonetheless, we are not satisfied that Alpine Energy:
- gave enough thought to how the expenditure would look from the perspective of public accountability; or
  - took all the steps it could have taken to ensure that it was in a position to allay any concerns that might be raised about it.

### Steps Alpine Energy could have taken

- 3.25 There are some steps we consider Alpine Energy could or should have taken to ensure that it could justify the expenditure and manage the perception risks associated with it. The possible steps include the following:
- Alpine Energy should have explicitly identified the expenditure as sensitive expenditure at the outset and therefore recognised that there were good practice guidelines it would need to have regard to, and a public perception risk that would need to be managed.

- Alpine Energy could have explicitly weighed up the costs and benefits of alternative ways of running the trial, so that it had a documented record of why installing the solar equipment on the employee's house was the most cost-effective and/or least risky option for the company.
- Alpine Energy could have explicitly considered how it would deal with any conflicts of interest that might arise when decisions were being made about the design of the installation and costs associated with installing it. Clearly the employee had a right to be involved in decisions that would affect their house. But we found no evidence that Alpine Energy had thought ahead to how it would manage any potential or perceived conflicts between what the company was hoping to achieve with the trial and what the benefits received by the employee were.
- Alpine Energy could have considered whether there were any other potential liabilities arising from the benefit being provided to the employee. For example, we were told that no advice about possible income tax or fringe benefit tax liabilities was sought.

3.26 Alpine Energy could have explicitly weighed up the costs and benefits of ending the trial sooner, once it became evident that it might not be able to collect any data. It is possible that the cost of removing the solar equipment and making good the employee's property outweighed the cost of leaving it there, even though Alpine Energy was not getting any benefit. However, we found no evidence that the company explicitly thought about that. We note also that, had Alpine Energy sold the solar equipment to the employee when they first enquired about buying it, the company might have been able to get a higher price for it.

### **Disposal of the assets**

- 3.27 Our good practice guide identifies circumstances where organisations are selling surplus assets to staff as being further examples of sensitive expenditure. That guidance sets out three specific expectations when public organisations consider selling surplus assets to staff. These are that the organisation should:
- ensure that all assets identified for disposal to staff are valued and subject to a tender or other process that is appropriate to the value of the asset;
  - recognise the value of the asset and any potential for actual or perceived undue benefit by staff; and
  - maximise the return to the organisation if disposing of assets to staff.
- 3.28 In May 2013, the Chief Executive presented a memo to the Board that described the proposal and the terms of agreement for the trial. The agreement stated that the solar equipment would be sold to the employee at the end of a three-year



trial for “half the depreciated book value or the price for modern equivalent – whichever is the lesser.”

- 3.29 We were told by Alpine Energy that, at the time of the agreement, the intention was that the final price would be half of the book value or half of the price of a modern equivalent system, whichever was less.
- 3.30 Alpine Energy invoiced the employee \$3,000 (excluding GST) on 20 December 2018, five years and seven months after the Board meeting. We were told that this price (the sale calculation) represented the mid-point between the estimated depreciated value and a modern equivalent system.
- 3.31 There are a number of aspects of the supporting calculations that were inexplicable or we do not agree with. There is a general lack of contemporary written documentation, either to support and explain why Alpine Energy deviated from the original agreement or to substantiate the judgements it made.

### **The process for disposal was appropriate**

- 3.32 In this case, we accept that because the equipment had already been installed on a specific employee’s house, it was neither reasonable nor practical for a tender or other wider disposal process to have been conducted. Accordingly, our findings below relate to how well we consider Alpine Energy has given effect to the other two expectations.

### **Determining the value at which the assets were recognised and sold**

- 3.33 The guidelines expect an organisation disposing of assets to staff to recognise the value of the asset and any potential for actual or perceived undue benefit by staff. The Chief Executive said that the determination of the value of the assets for the sale was “not an exact science”. However, it is not clear how Alpine Energy has determined the value.
- 3.34 There had been an agreement that any sale of the assets would be at the lower of two values, as described at paragraphs 3.28 and 3.29. The calculation of the price for the sale of the solar equipment was different to this. That price was the mid-point between the estimated depreciated value of the panels and the cost of a modern equivalent system.

### **The calculation of the depreciated value used estimated values for known actual values**

- 3.35 The first point to note is that Alpine Energy did not use the depreciated value of the assets from its financial accounts. At the point of sale to the employee, the net book value of the equipment was about \$16,000 (based on the evidence we have seen).

- 3.36 Alpine Energy calculated the depreciated value using a mixture of estimated and actual components. The estimated components used were the start date (1 July 2013 with an expected useful life of five years) and the cost of equipment (\$37,000). The actual component used was the date at which the trial ended (December 2018).
- 3.37 In the event, what actually happened was that the costs increased to about \$52,000, the start of the trial was delayed until May 2015, and the solar equipment was recorded as installed and available for use on 30 June 2015. The increased costs and the delays in getting the solar equipment operational meant that the original estimates of costs and the start and end dates were no longer applicable for calculating the subsequent sale price. Only the end date (December 2018) reflects what actually happened. It is not clear what an “estimated depreciated value” is. It is also not clear why this estimated value was substituted for the known depreciated value (\$16,000).
- 3.38 In our view, the starting point for determining the recognised value of the assets can only be what actually happened. That is the actual cost, as depreciated from the date that the equipment was capitalised until the date of disposal. Any departures from this starting point, and the reason(s) for departing from the original agreement, should have been clearly documented at the time.
- 3.39 The result of using the mixture of estimated and actual values is a depreciated value of \$0. We have been told that the employee could not have been charged the “depreciated value of the estimated cost, as that would have been zero”. However, as discussed above, the original agreement did not refer to estimated cost and so we question why that was applied to the sale calculation.

**Price of a modern equivalent system**

- 3.40 The other element in the calculation was the cost or price for a modern equivalent system.
- 3.41 In the original agreement this had to be determined in order to assess whether it was lower than the depreciated book value and therefore the price the employee would be charged. In the sale price calculation, a value for a modern equivalent system was also required because Alpine Energy decided to charge the employee the mid-point between the estimated depreciated value and the price of a modern equivalent system.
- 3.42 As part of working out the price of a modern equivalent system, Alpine Energy referred to an estimate for a small residential system, obtained in May 2018. The price quoted was between \$3,500 and \$5,000. We are not satisfied that this would have been an appropriate comparison because there is no evidence that the

estimate provided was for a similar system. There were no technical specifications in the information so it is not possible to confirm whether it was a comparable system or whether it included the cost of installation.

- 3.43 In any event, the value assigned to a modern equivalent system in the sale calculation was \$6,900, which is higher than the maximum \$5,000 quoted above. We were told that this was based on “referring to nationally advertised pricing” but we have not been provided with any evidence of this, nor have we been able to calculate a similar result.
- 3.44 The Chief Executive told us it was assumed that the cost of the modern equivalent system would not include batteries because, “if the company were to run a similar trial again, they would not include batteries”. In fact, the batteries represented most of the total costs of the trial (about 70%, see Figure 1). It is not clear how batteries could be excluded from the assessment of a modern equivalent system. In our view, it was inappropriate to exclude the battery components of the overall system for comparative purposes just because Alpine Energy’s view on what might be included in a future trial had changed.

#### **Other considerations**

- 3.45 We would have expected any write-down or reduction of the assets’ value, due to Alpine Energy’s assessment that the batteries did not work, to have been clearly recorded or documented at the time. We have seen limited records or documents relating to the fact that the batteries did not work but we note that, despite any perceived risk or concerns associated with Lithium-ion batteries, they remain installed and connected to the residential property. For example, we have not seen any evidence that Alpine Energy attempted to recover costs from either the manufacturer or supplier of the batteries, at the time when the faults were first noted, which we are told was shortly after installation.<sup>5</sup>
- 3.46 We also note that although Alpine Energy maintains that no data was obtained from the trial, the solar equipment remained on its asset register and the company has not been able to explain to us any other benefit it obtained from the equipment. From the evidence that we have been given, there was no reduction (or impairment) of the book value of the assets to reflect the operational problems.
- 3.47 Lastly, we were told that another relevant consideration at the time when the final price was determined was Alpine Energy’s obligation to “make good”. The agreement with the employee said that “either party can seek to remove permanently the solar equipment on reasonable notice and that Alpine Energy would make right the property.”

<sup>5</sup> We have assumed that there would be some right of refund or manufacturer’s warranty for the batteries not working (that is, not storing energy) so soon after being installed. The Chief Executive has told us that he “did not seek any discounts from [the supplier] throughout the duration of the installation” because he was “much more interested in getting it operational.”

- 3.48 No exact figure can be put on how much this would have cost, as it was not calculated at the time. However, Alpine Energy has told us that seeking to avoid possible financial exposure for any remedial work was one consideration when seeking to agree a final sale price with the employee.

### **It is also not clear whether the return to Alpine Energy was maximised**

- 3.49 Our good practice guide also sets an expectation that the return on the sale of surplus assets will be maximised.
- 3.50 As described earlier, the value of the equipment in Alpine Energy's books at the time it was sold to the employee was approximately \$16,000. The equipment was transferred in December 2018 to the employee for \$3,000 excluding GST. We describe the reasons we heard for calculating the sale price at paragraphs 3.30-3.34. It appears that the equipment was being sold to the employee for much less than it was worth to Alpine Energy.
- 3.51 Overall, Alpine Energy does not appear to have fully considered whether it was maximising the return when it determined the final sale price and disposed of the solar equipment. Alpine Energy appears to have been aware of the risks associated with offering the items for sale to the employee at a price that could be considered too low. We were told that the mid-point was chosen because Alpine Energy did not think it could charge the employee nothing.
- 3.52 On the other hand, the original agreement referred to two possible values (being half the depreciated book value and the price of a modern equivalent system) and stated that the assets would be sold for the lesser of the two values. We accept that it might be appropriate to ensure that there was sufficient incentive for the employee to agree to the trial in the first place, since it was going to be installed on their house. However, selling the solar equipment for the lesser of two values does not appear to demonstrate a conscious decision by Alpine Energy to maximise the return.
- 3.53 It appears to us that the price Alpine Energy was looking to find for the sale was a low and acceptable amount to the employee, rather than one that also sought to maximise the return to Alpine Energy and be seen to be fair and reasonable. This approach might have contributed to concerns that the employee was enjoying a benefit. This is the risk that the principles relating to sensitive expenditure try to avoid.
- 3.54 As we have said earlier, Alpine Energy should have explicitly identified the expenditure as sensitive expenditure at the outset and recognised that there were good practice guidelines it would need to have regard to, and a public

perception risk that would need to be managed. There is no evidence that Alpine Energy considered how its disposal of the asset aligned with those guidelines, in particular how the disposal maximised the return to the company and whether the price of disposal can be justified.