Discussion Document: Customer Assurance Scheme

December 2011

Table of Contents

1. Overview:

The New Zealand Solar Water Heating (SWH) Industry dates back to at least the oils shocks of the late 1970's, with some of the companies in the market today dating back to that period. Since this time, the industry has gone from an experimental 'garage' industry to the professional industry of today, with a number of competing companies and products on the market. There is also a degree of corporate involvement.

The products have transitioned from relatively low technology black painted serpentine flat panel collectors to specialised absorber coatings, and evacuated tube collectors. In 2006, the Government introduced a raft of new requirements on the Industry, which included product quality, product performance and product installation standards and guidelines. The Industry has largely embraced these changes, with many suppliers changing or upgrading product once testing results were determined.

In addition, the importance of system design, and in particular, the supplementary heating element control and position has been recognised by much of the Industry. Controllers have become significantly more advanced, and featured than the differential controllers previously used. Variable speed pump control is beginning to be widely used, particularly with evacuated tube collectors, where the control of flow rate is significantly reducing pump cycling that otherwise occurs with these collectors.

In summary, the systems that are available on the market today are generally significantly improved compared with those available in 2006. The chance of a consumer purchasing an effective, well designed and well installed system has increased substantially during this time. Recent installation audit reports show a high degree of compliance within the Industry.

There is, however, a legacy impression that remains in the public perception of the Industry of a poorly regulated industry fraught with widespread quality problems. There have been high profile failures of well known brands and products within the Industry. Whilst these problems are generally behind the industry, this is not necessarily the case in the public's perception.

The Industry seeks to address this lack of confidence amongst the public by introducing a Customer Assurance Scheme.

This scheme has been several years in development, and has yet to be enacted. This Discussion Document outlines the outstanding issues which the Industry needs to resolve, prior to the launch of the Scheme. As Executive Officer, I have prepared this Document to facilitate the discussion around the purpose and design of the Scheme.

All Accredited Members are strongly encouraged to provide feedback about the material in this Document.

Once there is sufficient clarity and understanding of the options, I will canvass the Membership for a vote to determine the direction the Industry wishes to proceed.

2. What are we achieving as an Industry?

One of the most important questions to be answered is that of why we exist as an Industry. The following questions need to considered:

- What it is that we are trying to deliver to our customers?
- What is our justification for on-going Government support?
- Should solar water heaters get treated differently to any other class of product?
- Are payback periods important?
- Is sustainability (life cycle cost) important?
- Or should normal market conditions apply to the SWH Industry as it does with any other? Should the buyer simply, beware?

There are a number of reasons why SWH might be considered differently to other products.

Several studies have shown that the primary reasons people buy SWH systems is to ***save money on hot water bills***, and for ***environmental / sustainability reasons***. Other dominant reasons are to reduce reliance on power companies and to future proof against higher energy costs.

A survey of the home pages of the EECA SWH partners resulted in the following claims being made in support of an investment in SWH.

- **Saving Money on hot water energy charges (80%)**
- **Environmentally friendly / Sustainable (45%)**
- Free hot water from the sun (35%)
- Reducing CO_2 emissions (20%)
- Reliable (20%)
- Cost effective (20%)
- Increased hot water service (10%)
- Add value to homes (10%)
- Future proofing (against higher energy costs) (10%)

From this, we can conclude that the ***Industry has a strong focus on the cost savings, and environmental benefits of these products.*** Interestingly, some companies' home pages make no mention of either claim.

The public is increasingly aware of Greenwashing; where companies use statements like 'reducing CO2 emissions', 'saving the planet', 'eco-friendly' and 'sustainable' without evidence of substance to verify these claims. Widespread perception of green washing decreases the authority of the organisations that makes those claims, and of the 'Green' movement as a whole***. The SWH industry risks a credibility issue if the claims it makes about its products are not realised in practise.***

2.1. What do we aim to deliver our Customers?

Customers predominantly buy SWH to save money, and to reduce their impact on the environment. In practise, the latter refers to greenhouse gas emissions (GHG). The desire to save money and to reduce GHG emissions is only partially linked. Reduction of GHG emissions is achieved through the reduction of electricity (or gas) consumed, but also through the reduction of the lifecycle energy costs (LCC) of the system. LCC is the energy consumed, and emissions generated through the

manufacture, transport, installation, operation and disposal of the system. In this context, the more energy the SWH displaces, and the longer it lasts for, the more positive is the LCC of the system.

Saving money through the installation of the SWH is different to the LCC of the system. The savings are related to the initial purchase cost of the system, and the money saved on energy bills. Energy prices, servicing costs, and system longevity all impact on the ability of the system to save the customer money.

There is little indication that the public sees SWHs as improving the hot water service, or that they value the hot water produced from a SWH any differently to that produced by other means. In many instances, there is a trade-off between SWH system performance and the hot water service delivered by the system.

Some customers do purchase SHWs to reduce dependency on the national electricity supply and power companies. Other customers living in more isolated regions purchase SWH to increase the reliability of their hot water service.

As an industry, if the primary motivation of the public to purchase SWH systems is to save money and GHG emissions, then system longevity, performance, and appropriate servicing costs must be prioritised by the Industry.

2.2. Justification for Government Support

In times of economic constraint, Government support for an Industry is not a given. The SWH Industry must justify the support that is offered through EECA, and the Government in general. New Zealand has one of the highest percentages of its electricity generation achieved through renewable energy in the world, due to a legacy of hydro-electric, and geothermal developments. New generation is often geothermal and wind.

Solar water heating has the potential to significantly reduce the electricity required for water heating in the home, and many businesses. A modern, well designed solar water heater readily achieves a 50% reduction in electricity consumption, and many systems achieve significantly higher savings. The Industry has, however, very little documented evidence of energy savings being achieved. The Solar Association is seeking to address this through providing a monitoring page on the website where verified energy savings can be promoted.

In the meantime however, the Industry can justify on-going Government support by an on-going commitment to steadily improving:

- product quality,
- performance,
- installation practises,
- longevity, and
- Customer satisfaction.

In general, all of these measures have markedly improved since the advent of product and system Standards. There is still considerable work to be done in smoothing the Building Consent process, and gaining the trust of the public that solar water heating is an investment worth making. The

absence of Government support at this stage is very likely to see slippage in Industry Standards, particularly those companies operating outside of the EECA Scheme.

2.3. Should solar water heaters be treated differently to other product classes?

In essence, if the public expects these systems to both save money, and save the environment (GHG) emissions) then a thriving industry would be expected to meet these expectations. At the same time, a thriving industry also needs companies that make healthy and sustainable profits over the medium term.

Unfortunately, there is a potential conflict between these two requirements. In the absence of regulation and/ or incentives, companies seeking to make short term profits by selling products that do not last, or under perform can often undercut companies selling products that are designed to last for the long-term. In the age of online retail, and easy access to international shipping, it is imperative to the SWH Industry that there is a clear distinction and understanding between system types, performance, price and strength of warranties. This is especially important for SWH products, where customers who have a poor experience are able to undermine the confidence in these products through sharing of their experiences with other people. Are payback periods important?

Renewable energy solutions are often driven by payback periods. This is because there is an investment required initially to install the system, which is in excess of that required for a 'conventional system'. Generally, the renewable energy system does not increase the level of 'service' provided (eg hot water, electricity etc), so needs to justify its cost through future energy savings. This differs to, for example, to an automatic garage door opener, where you either have one or you do not.

SWH does provide some intangible benefits in addition to saving money on energy bills. These are, for example, potentially increasing the value of the home, and making a 'green' statement to the community. In general though, it is the payback period, or the reduction in future energy costs that the public are most interested in.

2.4. Is Lifecycle cost important?

The most visible sign of the importance of lifecycle cost is at time of disposal of the system. This is of lessor importance if the system is readily recycled. Generally though, SWH add to the waste stream at time of disposal. Systems that have short lifecycles are detrimental to public perception of the SWH Industry.

2.5. Summary:

There are a range of reasons why the public would consider purchasing a SWH. Of greatest importance, according to both surveys of the public, and of the promotional material of the SWH companies themselves, ***is the ability of these systems to save money.*** Linked to this is the reduction of environmental impact from GHG emissions. It can be argued that SWH (and other renewable energy solutions) have an ethical responsibility to meet these expectations. In order to have a growing and healthy Industry, it is essential these expectations are met***. In addition, businesses need to be profitable in order to invest in the Industry, and develop.***

For the Government to continue to support the Industry there ***needs to be evidence of steady progress towards resolving outstanding issues, and progress towards a sustainable industry which is not reliant on Government support.***

The proposed Customer Assurance Scheme (CAS) is the Industries' response to increasing the public confidence in these products. ***The introduction of a CAS is the next logical step in the process already initiated by EECA.*** This process has seen product quality tested (AS/NZS2712:2007), performance tested (AS/NZS2535, AS/NZS4234:2008), installation guidelines developed and systems audited. A successful CAS is likely to significantly increase the sales of SWH in New Zealand, as it will help to significantly reduce the uncertainty and risk the potential customer faces when purchasing these systems.

The Solar Association is pivotal to a Customer Assurance Scheme, as in effect, there is a migration of risk from the buying public to the Association.

The key components for a CAS are:

- Managing customer expectations and meeting legal obligations for SWH products
- A reputable, funded, supported and robust Industry Association
- Participating companies that are reputable, experienced and profitable
- Products that are high quality / low risk, and deliver high customer satisfaction
- A CAS that has adds real value to the sales and ownership process
- A robust, sufficiently funded, effective and impartial complaints process

The absence of any of these factors will greatly dilute the value and the likely success of a CAS.

3. Overview of the CAS.

The Solar Association Customer Assurance Scheme is intended to provide ***peace of mind to the SWH buying public, through clearly identifying companies that are reputable and reliable, and that are selling products that meet both Industry Standards, and legal obligations.*** The Scheme is to be backed by the Solar Association; with a ***robust complaints resolution procedure that is effective at achieving an acceptable outcome for the customer should the ownership process not go as smoothly as desired.***

At present, all customer complaints are expected to be made in the first instance, to the seller of the system. In many instances, the company that sold the system has limited knowledge about the system, and there is conflict between the retailer, the installer and the system supplier. This frequently leads to poor customer satisfaction outcomes, and this is the major area that the Association can take a lead in addressing.

The proposed CAS will make the system supplier the initial point of contact with the customer, where the problem is not directly related to an installation issue (eg a leaking pipe etc). Product failure / unsuitability issues etc are to be resolved between the Accredited Supplier and the Customer. Should a satisfactory outcome not be reached, then the Customer will be able to contact the Association.

The Association will:

- Provide comprehensive information about solar water heating system design and application on the Association website.
- Facilitate a discussion between both parties in order to attempt to reach a solution.
- Support each party, as required, in providing factual, objective information regarding the issue.
- Appear as a witness for either party, as required, if requested, should legal proceedings be initiated.

The Complaints Resolution Procedure will be funded partly by the existing Levy system, and party by cost recovery. The first three complaints for each Accredited Supplier will be funded out of existing funds. After that, further complaints with be charged to the Accredited Supplier at the current hourly rate charged by the Technical Officer / Executive Officer, as required. Each complaint will be summarised in the monthly Executive Officer Reports filed to the Committee.

Where the Committee disagrees (majority vote) with the action taken / information given by the Technical Officer / Executive Officer, the Member will be exempt charges relating to that case. The Executive Officer will be advised accordingly.

Associate Members are not able to offer a CAS for their systems. As such, the Association will offer limited support for customer complaints arising from these members. The Association will support one complaint per Associate Member annually, with further complaints being charged for on a cost recovery basis. Associate Members will not be able to offer their Customers access to the Complaints Procedure, as part of the sales process. If contacted, the Association will offer general guidance.

Initially, funding of the Complaints Procedure will be met by existing revenue streams, to the limit as stated above, however this will be reviewed periodically.

3.1. There are four phases in the SWH ownership process

- Initial company / product selection
- Sales agreement / installation / commissioning
- Ongoing service / customer support
- Disposal of system

The CAS is involved in the first three of these phases. The Solar Association provides independent information on the benefits of each system design and setup. The performance of each qualifying product is listed on the Association website. The Association provides, through the Executive Officer, unbiased information and advice to the Customer.

Once the decision is made to purchase, the Customer pays a deposit to the SWH supplier, who then organises the system to be installed and completes the commissioning process. The CAS provides assistance to the Customer should the system not be installed according to the Customer's expectations.

Once the sales and commissioning process is completed, the customer may enter into some form of service / maintenance relationship with the supplier. This may be a formal maintenance contract, or may be left open, where the Customer contacts the solar supplier should servicing be required. There will be a warranty period offered by the Supplier that relates to the system components installed. The Consumer Guarantees Acts provides a minimum degree of protection for the Customer. The CAS provides a pathway for the Customer to follow should the ownership experience of the system prove unsatisfactory.

The final stage of ownership of a SWH is the upgrading / disposal of the system at the end of its useful life. The CAS is not involved in this process.

3.2. Stage 1: Initial Company and Product Selection

From an Association perspective, the first stage is low risk provided the Membership considers the purchasing assistance offered by the Association to be unbiased.

- *All material put on the website will be checked for bias, and objectivity prior to launch.*

3.3. Stage 2: Sales Agreement / Installation / Commissioning

The second phase of ownership adds a degree of risk to the Association only where the solar supplier fails to install the system to the completion of the commissioning phase due to company failure. ***This risk can be partially mitigated through ensuring participating companies are financially stable, with a strong track record of delivery, and are selling products that meet the required Standards.*** In addition, the installation expertise and processes of these companies will be detailed during the Accreditation process of the Association. The Association will endeavour to provide assistance to participating companies in the Building Consent process.

3.4. Stage 3: Ongoing Service / Customer Support

The third phase is the most contentious within the design and implementation of a CAS, as it involves consideration of the required performance and longevity of the system. Central to this is the Consumer Guarantees Act (CGA).

3.4.1. Consumer Guarantees Act 1993 No91, Part 1.

The Consumers Guarantee Act contains the following relevant sections:

6 Guarantee as to acceptable quality

- *6 (1) …. where goods are supplied to a consumer there is a guarantee that the goods are of acceptable quality.*

7 Meaning of acceptable quality

- *(1) … goods are of* ***acceptable quality*** *if they are as—*
  - *(a) fit for all the purposes for which goods of the type in question are commonly supplied; and*
  - *(e) durable,—*

  as a reasonable consumer fully acquainted with the state and condition of the goods, including any hidden defects, would regard as acceptable, having regard to—
  - *(f) the nature of the goods:*
  - *(g) the price (where relevant):*
  - *(i) any representation made about the goods by the supplier or the manufacturer:*
  - *(j) all other relevant circumstances of the supply of the goods.*

8 Guarantees as to fitness for particular purpose

- *(1) ….. the following guarantees apply where goods are supplied to a consumer:*
    - *(a) that the goods are reasonably fit for any particular purpose that the consumer makes known, expressly or by implication, to the supplier as the purpose for which the goods are being acquired by the consumer; and*
    - *(b) that the goods are reasonably fit for any particular purpose for which the supplier represents that they are or will be fit.*

  (2) Those guarantees do not apply where the circumstances show that—
    - *(a) the consumer does not rely on the supplier's skill or judgment;*

  (3) This section applies whether or not the purpose is a purpose for which the goods are commonly supplied.

The key issue that the CGA does not directly specify is timeframes. This is one of the challenges that the SWH Industry faces today. There are two aspects to this issue, both of which need to be considered.

1) A Guarantee offered by a company, if it is to be meaningful, requires that the ***company is still trading throughout the Guarantee period.*** The longer the Guarantee that is offered, the more committed the company must be to the market. In this regard, a degree of caution is required from newly established companies with no trading record. This needs to be balanced so as not to impose insurmountable barriers to new entrants. New entrants offering products which are already established in the market present a lower risk than those with novel products. An approach to resolving this issue might be to require a commitment to servicing and follow-up checks between the system supplier and the customer. In addition, the Accreditation process will require evidence of systems in place to follow up on previous sales / servicing etc.

2) The public are used to mostly low pressure, copper tanks. These typically lasted 30+ years, with minimal maintenance required. Mains pressure tanks are generally relatively recent entrants to the market, and the ***general public is not used to the shorter lifecycles of these products***. The cost of tank replacement involves a considerable outlay in both materials and labour.

Taking the CGA into consideration, the key points are:

Goods supplied must be of a ***quality*** and ***durability*** that a reasonable consumer would find acceptable, after taking into account ***the nature and price of the goods,*** and any ***representation made about the goods*** by the supplier or the manufacturer. Systems must be installed with a building consent and compliant to G12/AS2.The two major claims (saving money and reducing environmental impact) the Industry makes to the public about SWH products both ***focus on product longevity***, albeit indirectly. There is however, scope within the CGA to take into account variations in price. The greatest benefit to the Customer that the CAS can offer, in the absence of an insurance policy based scheme, is transparent information provided by the Association on the various aspects of system design and specification. Taking this approach adds real value to the Customer, yet it does not expose the Association to an unfunded liability. Such an approach does not limit the range of products and designs available for sale by Association Members, but it allows a potential customer to weigh up the various benefits of each system type, in an objective transparent manner.

Systems that provide a lesser degree of durability would have this fact reflected in the price paid for that system. Under the Consumers Guarantee Act, price paid is a direct factor that influences implied durability requirements.

3.4.2. What might be considered acceptable durability for a SWH system?

3.4.2.1. Collectors and Tanks

The solar water heating collectors are expected to last a considerable period of time. With a payback period of at least 5 years, and generally around 10 years, the collectors need to last at least this long. ***A ten year warranty on the collectors is widely available through the Industry at present.***

The expected lifetime of the tank is more controversial. Where a SWH collector has been retrofitted to an existing mains pressure tank, the expected lifetime of the tank is shorter than if a new tank were to be installed. Partly this is because the tank is already older, and also is partly because the tank was not designed for solar application. This is relevant due to the lack of solar ports, the position of the element / thermostat and the higher temperatures that solar can generate within the tank. The expected lifetime of these installations is therefore highly variable, particularly where steel / enamel tanks are involved.

In general, low pressure tanks are constructed of copper, and are more suitable for retrofitting to a SWH.

Where a new tank is installed, the tank will generally be constructed of stainless steel, or steel / enamel and designed for solar. There are some variations, for example, a copper based heat-store tank. These tanks should last considerably longer than a retrofit installation. Feedback from customer complaints through the Association suggests that a ***5 year lifetime is insufficient where a new tank has been installed***. This is understandable, when the primary reason for purchasing the system was to save money. A replacement tank is likely to cost upwards from $2000 including installation. A typical system saving $500 a year has all of the savings cancelled, when maintenance costs are included.

Some tank manufacturers are providing 10 year, or more guarantees on their tanks. There is scope for shorter tank lifetime periods where the price paid for the tank reflects this.

Whilst the CGS does not specifically specify what acceptable durability is, advice from EECA, based on work done by a Ministry of Internal Affairs survey found that the public expect a minimum of 15 years from a newly installed heated water system. There was a very negative reaction to systems lasting only 5 years**. For the purposes of the CAS, the absolute minimum life is considered to be 10 years.** Tanks that fail after 5 or so years do a considerable disservice to the Industry. This is particularly the case where pro-rata warranties are offered on these tanks. The cost of installation of replacement tank should be met by the supplier of the tank.

3.4.2.1.1. Case Study:

For instance, a tank with a 6 year warranty that costs $1400 + installation (($600) fails after 5 years. The customer is offered a pro-rata warranty on the tank. The supplier replaces the tank, like for like, and charges the customer $1767 for the new installation. The customer is left wondering how long

the new tank will last, and resents having to pay another $1767 on top of the $6500 they originally paid for the SWH system 5 years ago. During this time they have made $2000 in electricity savings.

How does a situation like this reflect on the SHW Industry as meeting the claims of:

- *Saving money, and*
- *Reducing environmental impact?*

3.4.2.2. Pumps and Controllers:

Pumps and controllers typically have short manufacturer warranties. Pumps are prone to being incorrectly installed, operated without fluid, or sufficient fluid pressure, and can be operated at excessive temperatures and pressures in a SWH system. Good system design and installation can greatly influence the expected lifetime of a pump. A replacement pump costs approximately $300-400 with installation in addition. This is a significant cost to the system owner, and represents about a year of energy savings.

Controllers are subject to the usual limitations of electronics. Power surges, lightning strikes on nearby lines, dampness etc can impact on longevity. These are low cost items to replace, and are less of a concern for the industry.

4. Design of a CAS:

There are two broad options for a CAS that the Association needs to consider;

4.1. Option 1:

The CAS is primarily based on the reliability and reputability of the solar companies. The CAS would function primarily to give 'peace of mind' to the Customer that the following conditions will be met by the solar supplier, and by the Association.

- The solar company has a track record of meeting customer expectations (evidenced through a lack of complaints through the Association Complaints Procedure).
- The products the company sells all meet the Standards required by the Industry (eg 2712:2007 compliance, and AS/NZS4234:2008).
- The Association provides cover for the customer should the solar supplier fail complete commissioning of the system to the Clients satisfaction, and the company has ceased trading in the meantime.
- All other claims under the CAS fall onto the solar supplier.
- Systems sold are required to meet the CGA, under New Zealand law.
- The Association provides a customer complaints procedure with the option of terminating the membership of the Association should the solar supplier repeatedly fail to meet customer expectations, or if the Association finds the supplier guilty of serious misconduct.
- The Association undertakes a robust Accreditation Process to ensure that companies offering the Association CAS are financially robust, and have sound processes and systems in place.

The CAS under this option does not:

- Distinguish between classes of systems,
- Provide guidance on system durability,
- Ensure that systems sold are likely to meet the 'saving money' or 'reduce environmental impact' claims,
- Provide any extension other than that required under the CGA.

4.2. Option 2:

The CAS aims to provide peace of mind to the Customer that the system they have purchased is a high quality system likely to meet the 'saving money' and 'reduce environmental impact' claims made by the industry.

Under this option, the CAS would be offered to solar suppliers who can meet the following criteria:

- The products the SWH supplier sells meet the Standards required by the Industry (eg 2712:2007 compliance, and AS/NZS4234:2008).
- The SWH supplier has **met the requirements of the (updated) Association Accreditation Process**, which ensures the company is financially robust, and has sound processes and systems in place.
- The SWH supplier has a track record of meeting customer expectations (evidenced through a lack of complaints through the Association Complaints Resolution Procedure).
- Systems are to be installed to meet the requirements of G12/AS2. G12/AS2 continues to be the most readily accepted path for compliance to the NZ Building Code.

The CAS would be offered by the solar supplier to installations that meet the "Grade A" (or its alternatives – eg "Gold") system criteria as agreed by the Industry as representing the highest level of system design, performance and reliability available by the Industry.

Under this option, systems would be assigned a Grade according to ***the requirements of one of the Industry approved design and construction specifications as agreed by the Industry, (see Guidance Document in Appendix).***

4.3. Common to both Options:

There is cover for the customer funded by the Association should the solar supplier fail to complete commissioning of the system to the Clients satisfaction, and the company has ceased trading in the meantime.

The CAS is provided by the Accredited System Supplier (either Manufacturer or Importer), and offered through their retailer. This would require that the Supplier has control over their retailers and installers.

A frequent complaint within the Industry is that where something goes wrong there is shifting of the responsibility between the supplier and the installer. Accredited suppliers are required to have product specific training in place for their affiliated installers. Where installations are unsatisfactory,

the discussion should be between the Accredited Supplier and the installer, not between the installer and the customer.

This is especially important for the customer when there is a retailer involved, as typically the retailer has limited knowledge of the product they are selling, and the installation requirements. In addition, where relevant, the contract EECA has is usually with the Supplier, yet the Customer has a sales agreement with the Retailer.

An Association led Customer Complaints Procedure will have the option of terminating the membership of the Association should the solar supplier repeatedly fail to meet customer expectations, or if the Association finds the supplier guilty of serious misconduct.

Broadly the difference between the two options is:

Option 1:

- Provides limited 'peace of mind' for the customer based mostly on reassurance that the SWH supplier is a reputable company.
- Covers all systems supplied by an Accredited Supplier.
- Ensures that the paid for system will be installed and commissioned.
- Does not offer any protection beyond that provided by the CGA.
- Exposes the Association to the risk of customer complaints where a supplier sells systems that may meet the CGA, but not the expectations of the customer. This risk largely lies within demands on the Complaints Resolution Process.
- Endorses the full range of systems provided by the Accredited Suppliers.

Option 2:

- Ensures that the paid for system will be installed and commissioned.
- Provides extended 'peace of mind' that they systems purchased are fully disclosed in terms of performance, cost, warranty tc, with best practise design and installation.
- Maximises the chance the customer has a favourable SWH experience that delivers on the 'saving money' and 'reducing environmental impact' claim.
- Provides a strong incentive to the Customer to purchase a 'best practise' system (as these would be the only systems offering the CAS).
- Significantly reduces the risk to the Association of the Customer Complaints Procedure being overwhelmed.
- Provides an 'up-valuing opportunity' at point of sale.
- Allows for the continued sales of retrofit systems and systems with reduced warranty periods, but increases transparency prior to sale.
- Demonstrates to the Industry, the public and the Government that the Industry is serious about quality and delivering on the potential of SWH.
- The CGA still applies to systems covered by the CAS, with no extended risk covered by the Association.

- Discloses all options however by default of comprehensive information provided, Endorses a limited range of systems provided by Accredited Suppliers.

4.4. Discussion of the two options:

The business as usual approach is covered by Option 1. Whilst both options rely on a robust Association Accreditation Process, Option 1 requires only that the company is assessed as reputable by the Association. The risk to the Association is that a seemingly reputable company could burden the Association with a legacy of problematic installations covered by the CAS. The Association would have no influence on the types of systems installed, with the supplier is only legally required to meet the CGA. At present, there are frequent complaints to the Association that suppliers are reluctant to remedy systems that have not had the expected durability. Where they agree to resolve the issues, it is often on a pro-rata basis.

In short, this approach may meet the CGA, but which are not meeting the expectations of the customers, or the claims made by the Industry. This situation is likely to continue to stunt the potential of the SWH Industry.

Option 2 provides all the safeguards inherent in the Association Accreditation Process, but also provides strong ***guidance on which systems are considered Industry 'best practise'***, and which are compromises on 'best practise'. Systems which are sold on the basis of price consideration will continue to dominate the SWH Industry, but there would be ***greater transparency*** as to what was being purchased.

This would enhance the reputation of the SWH Industry, and better clarify the requirements of the CGA, where consideration of purchase price can be taken into account. There would be a strong ***incentive for the suppliers to offer, and for Customers to purchase, systems covered by the CAS***. The Suppliers would be able to demonstrate to Councils that the systems covered by the CAS are low risk, with the potential for reduced consenting costs in the future.

4.5. How would system grading be determined?

The general principle is to select for systems that:

- Have inherent longevity and durability, by way of the materials with which they are constructed.
- Perform well in most situations.
- Are resilient to power cuts etc.
- Have a low on-going maintenance requirement.
- Represent low risk products to the Association

As new technologies become more widely established, then they would be added to the list of products that are covered by the CAS.

It is proposed that the Association forms a working group to determine collaboratively what the systems are to be endorsed by the Association CAS. This could take the form of Grade A, B and C, or Gold Silver Bronze etc.

A summary of the technologies used in SWH systems in New Zealand is provided as part of this Discussion Document.

5. Final Summary, and points to consider:

Referring back to the promotion of SWH by the Industry, and the reasons the public purchase SWH products, the durability of the systems appears to be the most important consideration for the long acceptance of the Industry. Whilst other factors drive the sales process (price, aesthetics, knowledge etc), it is systems that provide poor performance and / or prematurely fail that most stunts the Industry. Lack of system durability underlines the resistance of Government (Central and Local) to more actively support the Industry. It is also durability that ultimately enables the Industry to meet the claim that the systems ***'save money'***, and 'reduce the ***impact on the environment'***.

Fundamental to the design of the CAS should be the support of SWH suppliers with ***proven track records***, stable company structures and ***selling products that are most likely to meet the expectations of the Customer***.

Should the CAS signal to the Customer that the Supplier meets the minimum requirements of the Building Act, the CGA with the main protection being the guarantee that the paid for product will be installed?

Or should the CAS offer greater protection to the Customer than that required by the CGA, and provide strong guidance as to what products / designs are considered best practise by the Industry? Should systems covered by the CAS provide assurance to the customer that the Industry claims of saving money and reducing environmental impact will most likely be met?

In essence, the Association is presently unable to provide customer protection in the form of a guarantee on the product that is sold through Accredited Members. Should a product fail, and the original supplier is no longer trading, or is unwilling to 'make it right', the Association is unable to financially rectify the situation, even when there is a clear breach of the Consumer Guarantees Act. There can be no unfunded liability transferred from the supplier to the Association through the CAS.

The Association is however able to provide clear guidance that a system sold under the CAS is:

- most likely to be supplied by a reputable supplier,
- meets the required Standards,
- is installed to G12/AS2, has a building consent,
- is constructed out of materials generally accepted by the Industry as likely to have a durability exceeding 10 years, and
- to a design that is low in required maintenance and on-going costs.

If the Association is serious about providing assurance to the customer that the products offered by the Accredited Suppliers meet the claims made about SWH technology, then the CAS should provide clear guidance as to which systems, sold by which suppliers meet these requirements. Otherwise the CAS becomes a marketing exercise that does not deliver on its potential to provide customer assurance.

A CAS that fails to provide real Customer Assurance undermines the potential of what the Association can offer. The Association has amongst its Members the most experienced,

knowledgeable people in the Industry selling proven, quality systems that are internationally distributed in many cases. The Association should be utilising these assets in developing and implementing a Customer Assurance Scheme that focuses on integrity, reliability and performance within the SWH Industry in New Zealand. There will always be suppliers outside of the Association, and the CAS that can undercut on price and quality, and the CAS is the best way to combat this in the marketplace.

This is the opportunity for the Association to take the lead in demonstrating that SWH is a modern, reliable, proven technology supported by an Industry to stands behind its members and their products, confident that systems supplied will meet both the expectation of the Public, and the claims they themselves make.

Feedback on the material in this Discussion Document, either in written form, or verbally will be gratefully received, and should be directed to either the Executive Officer (Adrian Kerr) or the Business Development Officer (Dana Darwin).