

# SYNTHETIC REFRIGERANT STEWARDSHIP PROJECT

## Stakeholder Consultation Report Two: *Identify options for mandatory product stewardship*

### INTRODUCTION

Product stewardship is a “cradle to cradle” methodology that helps reduce the environmental impact of manufactured products. Under product stewardship schemes (PSSs), producers, manufacturers, brand owners, importers, retailers, consumers and other parties accept responsibility for the environmental effects of their products – from the time they are produced until the end of their useful life and are recycled or disposed.

This report assess potential options, their costs and benefits and determine what is the preferred option of the Working Group using the available information.

We have chosen to focus on three main options.

1. Current status quo
2. No product stewardship schemes.
3. Co-designed with supporting regulations

This report will consider each option and compare the main aspects of the life of the SGG refrigerants from the moment they enter the country to the moment they leave or are destroyed.

### OPTION 1: CURRENT STATUS QUO

Currently there is a single product stewardship scheme operating in NZ. RECOVERY is a voluntary scheme that is accredited by the Ministry for the Environment under the Waste Minimisation Act 2008.

RECOVERY is funded by a fee that is paid by the majority of bulk SGG refrigerant importers. This fee funds the aggregation, transport and disposal of SGG refrigerants deposited at specific locations around the country. The service is free to all holders of SGG refrigerants regardless of whether the producer or holder has paid the advanced disposal fee to RECOVERY.

### OPTION 2: NO FORMAL PRODUCT STEWARDSHIP SCHEME

Given that there is currently no legal requirement for producers to develop, operate or participate in a PSS for SGG refrigerants, there is the potential that the current voluntary PSS scheme RECOVERY decides to cease operations.

This would leave holders of SGG refrigerants in New Zealand with no free disposal option.

### OPTION 3: REGULATED SCHEME

With this option SGG refrigerants have been declared priority products and producers are required to be part of a product stewardship scheme. Regulations have placed controls on the use and management of SGG refrigerants and how they are stewarded within New Zealand.

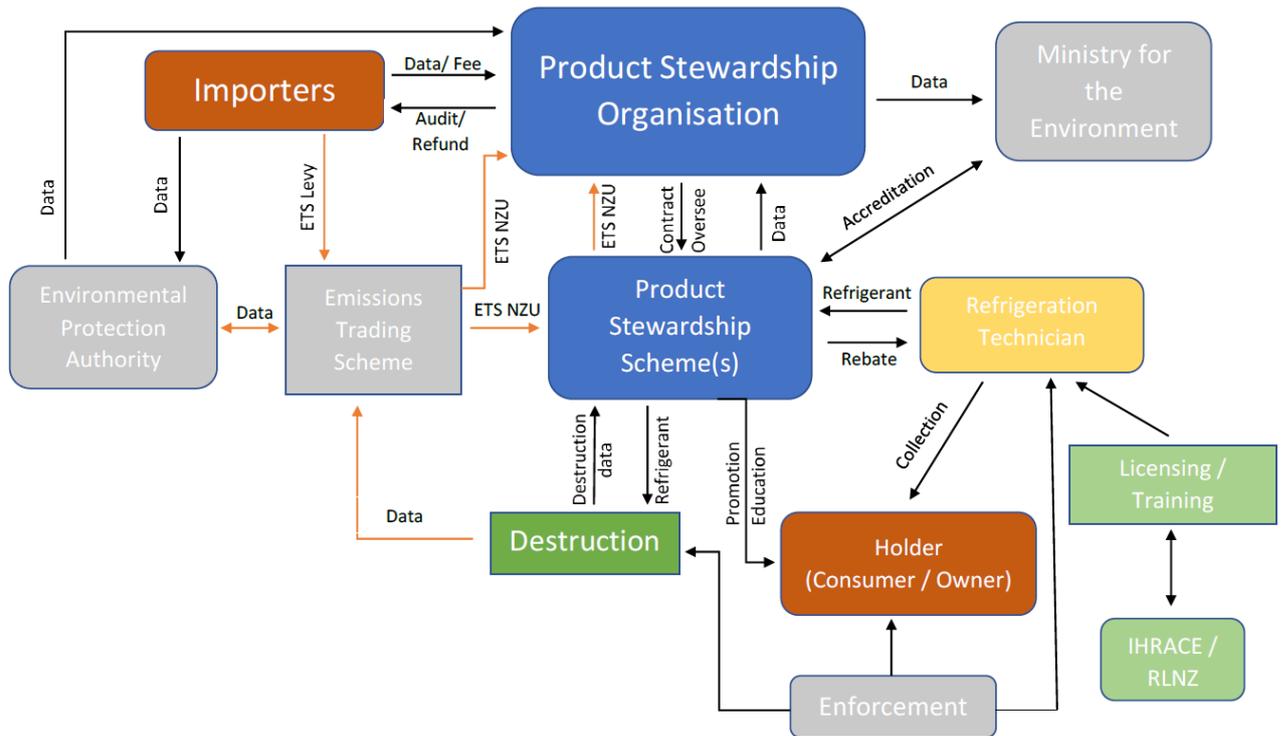


Figure 1: Proposed structure – option 3: Regulated Scheme

It must be stated that this is the first stage of a process in designing an SGG refrigerant stewardship system and not the finished product.

## COST BENEFIT ANALYSIS

Economic cost and benefits were measured from the perspective of society as a whole, and for comparative purposes, where possible monetised and discounted to convert them to their net present value (NPV). An overview of the CBA approach is illustrated below.

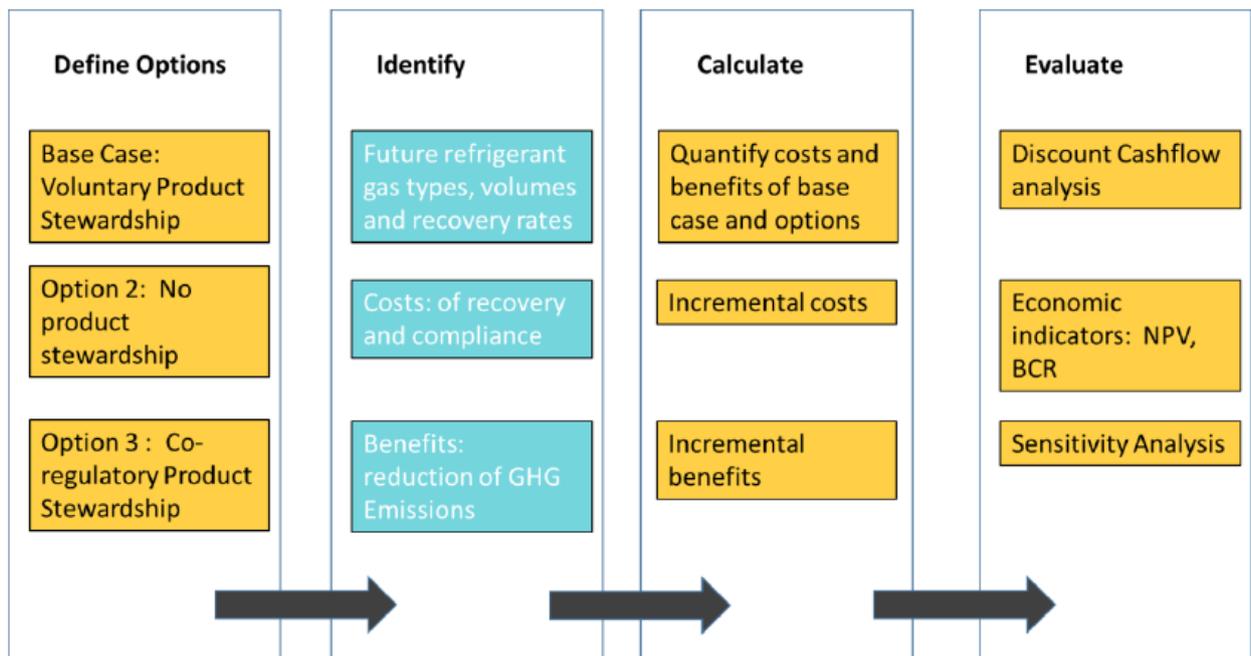


Figure 2: Overview of CBA approach

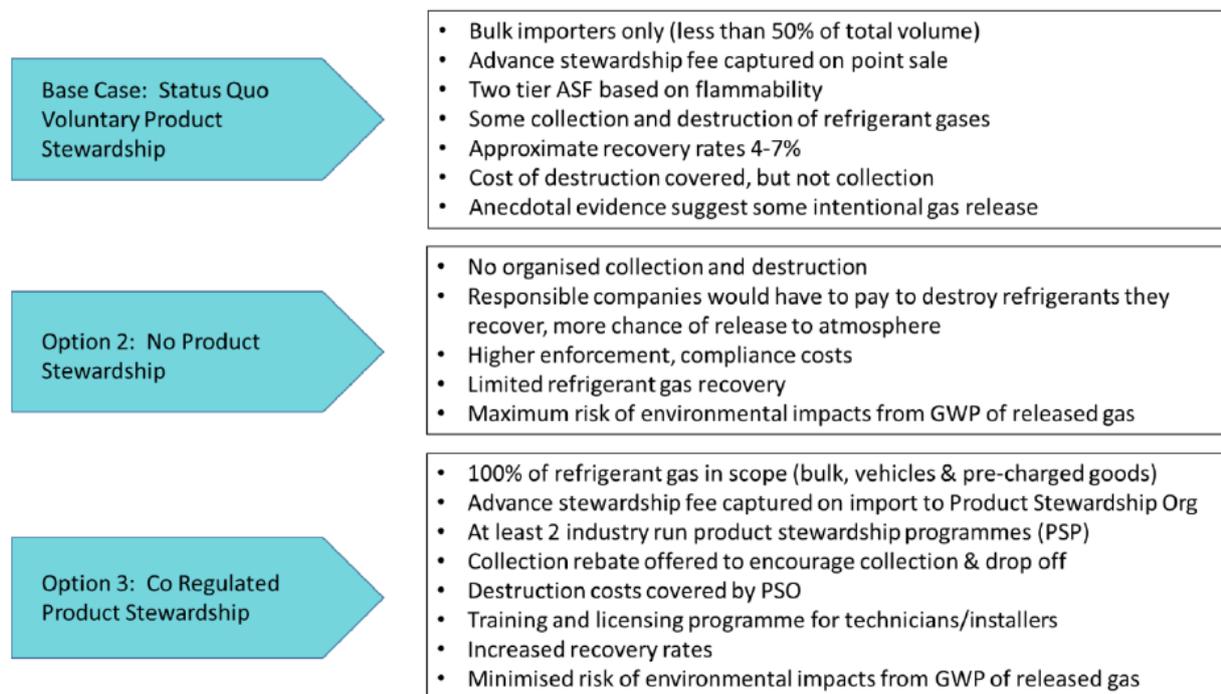


Figure 3: Base case and options considered under the preliminary cost benefit analysis

Analysis of costs and benefits relating to stewardship options of SGG refrigerants found that:

- Under all options the costs are borne by industry and government, and benefits flow to the environment, community and society as a whole.
- The benefits exceed the costs under each option.
- Option 3, a co-regulatory approach had the largest net present value of the three options analysed.
- The benefits are largely driven by increased SGG refrigerant collection rates and the value of the credits from the Emission Trading Scheme.
- The options are potentially largely sensitive to the value placed on the recovery of these gases and associated avoided emissions

This cost benefit analysis forms part of a process of investigating options for increasing the recovery and destruction of SGG refrigerants which have high global warming potential.

The purpose of the CBA is to measure the economic, environmental and social costs and benefits of the product stewardship options developed by the Working Group and the Ministry for the Environment, and to compare the relative net benefits to society of the three options.

## REGULATORY REQUIREMENTS

It is considered that the following requirements would be essential to ensure that any regulated PSS(s) for SGG refrigerants are safely stewarded through their lifecycle from importation through use to their final safe disposal at end of useful life.

- Product Stewardship Organisation** - Given the commercial sensitivity around the data that is required for setting and receiving stewardship fees it is considered this is done by an independent non-profit stewardship organisation. The preferred option (Option 3) requires this to be established to collect data, set the advanced stewardship fee and oversee the delivery of the product stewardship schemes.

- b) **Data management** - A requirement for those who import, export, manufacture, sell, collect and/or dispose of SGG refrigerants to collect, maintain and provide on request data relating to their SGG refrigerants.
- c) **Advanced Stewardship Fee** - A requirement to pay an advanced stewardship fee that is set at a level that can cover the cost of final collection and safe disposal. It should also cover promotional and administration costs involved with the scheme.
- d) **Training and Qualifications** - A requirement that all who handle, install, service/maintain, remove and/or dispose of SGG refrigerants are suitably trained and qualified.
- e) **Equipment standards** - That all equipment used during the lifecycle of SGG refrigerants is of a suitable standard and is regularly maintained to ensure that SGG refrigerants are not lost to the environment.
- f) **Recycling controls** - That any recycling of SGG refrigerants is carried out in a manner that ensures they are not released to the environment and is carried out by suitably qualified persons using appropriate equipment.
- g) **Prohibition of intentional discharges** - That the intentional release of SGG refrigerants is prohibited and that there are legal consequences for such releases.
- h) **Collection locations/services** – In order to be successful any product stewardship scheme needs a good distribution of collection locations and/or services where collections for larger volumes can be carried out on site.
- i) **Storage controls** - That SGG refrigerants held in storage for either recycling or disposal are done so in containment systems that meet current suitable standards.
- j) **Safe destruction** - That collected unwanted SGG refrigerants are safely destroyed and records of this destruction are maintained.