



Growing sociability and wellbeing in our world



LION FARM SERVICES

Refrigeration and Generator Support
Scheme

Scheme
Information
Booklet

The milk comes first



INTRODUCTION

Lion and Dairy Farmers Milk Co-operative Limited (DFMC) Refrigeration and Generator Support Scheme Policy is part of the company's overall commitment to on-farm milk quality. The key objectives of the Support Scheme are to:

1. Improve on-farm milk cooling and storage capacity, and decrease on-farm cooling costs.
2. Assist with the maintenance of milk quality by refrigerating milk in times of disturbances to power supply.
3. To improve milk collection efficiency therefore reducing cartage collection costs.

To achieve these goals, Lion provides a 20% rebate on the purchase and installation price of new milk cooling equipment, and a 20% rebate on the purchase and installation of generators. (Refer to full policy document)



REFRIGERATION and GENERATOR SUPPORT SCHEME **FULL POLICY DOCUMENT**

Effective Date: 1st July 2011

Expiry Date: 30th June 2015

Summary

The Refrigeration and Generator Support Scheme offers a 20% rebate on the purchase and installation price of refrigeration equipment and generators. The rebate is paid over 5 years for refrigeration equipment and 3 years for generators, and both Lion direct suppliers and Dairy Farmers Milk Co-operative members must be accredited under Simply Perfect (the Lion Farm Quality Assurance Program) to obtain the rebate.

Introduction

The scheme has the following objectives:

- To improve milk quality through the better cooling of milk
- To help remove storage capacity restrictions on supplier's production
- To assist with the maintenance of milk quality by refrigerating milk in times of disturbances to power supply.
- To improve milk collection efficiency (and therefore reduce cartage costs)

Policy

A rebate of 20% of the cost of refrigeration installations will be paid to suppliers over 5 years. Maximum total cost will be \$150,000 for refrigeration equipment and installation costs.

A rebate of 20% of the cost of generator installations will be paid to suppliers over 3 years. Maximum total cost will be \$20,000 for generators and installation costs



Other provisions

- Payments will be made on a monthly basis and subject to the provisions outlined in this document.
- The rebate will only be available to suppliers accredited under *Simply Perfect* (the Lion Farm Quality Assurance Program). Rebate payments will cease while suppliers are suspended from accreditation for any reason.
- Rebates will only be paid while milk is supplied from the dairy. If the property is sold, the rebates will be discontinued. If the supplier ceases supplying either Lion or Dairy Farmers Milk Co-operative and commences supplying another dairy company, Lion reserves the right to recoup the rebate payments from the supplier's final milk cheque. Changes in ownership due to family transfers or arrangements will be permitted.
- The refrigeration equipment must either substantially increase the cooling performance of the farm or its capacity.

Capacity requirements will reflect normal industry requirements and practices.

In areas where Year Round Milk supply is normal practice, rebated installations must provide a capacity of a minimum of 3 times the peak daily intake over the last twelve months. Increases to 4 times peak intake are preferred.

In areas where Seasonal Milk supply is normal practice, rebated installations may be less than the minimum of 3 times the peak daily intake subject to approval of the relevant Farm Services Manager. However, the installation must provide a capacity of a minimum of 2 times the peak daily intake over the previous twelve months.

Any installation of 15,000 litres capacity or greater will be eligible for the rebate, regardless of peak production requirements.



Eligible Equipment/Services

Both equipment and work connected directly with the installation of the equipment would be included in the Rebate amount.

The minimum value of any one refrigeration project would be \$15,000 with a maximum value of \$150,000 per farm. (That is, there may be more than one project eligible on the farm, but the maximum capital amount to be considered for a rebate will be \$150,000).

The following would be eligible for rebate:

- Milk tanks less than 10 years from date of manufacture. These tanks must conform to Lion Vat Guidelines.
- Refrigeration Units including direct expansion, Icebanks and Glycol chillers provided they allow the system to perform to the Lion Vat Guidelines.
- Plate coolers and milk pumps. (See attached sheet for further information).
- Electrical, plumbing, refrigeration supplies (eg. refrigerant gas) and milking machine alteration costs directly associated with the installation of the above equipment.
- Generators with a minimum capacity of 25 KVA.

At all times, Lion must be satisfied that the proposed costs and charges are genuine. It is expected that two quotations/valuations will be provided in support of any claim for rebate.

Lion reserves the right to reduce the amount of rebate payable where it believes that the costs of goods and services as claimed are greater than the true value. The rebate amount will be calculated on expenditure excluding any GST component. Any evidence of fraud will result in immediate exclusion from the Scheme, plus any other action Lion deems appropriate.

For more information, contact your relevant DFMC Regional Manager or Lion Farm Services Officer.

Greg Gilbert
Farm Services Manager SA/WA
30th May 2011





AUSTRALIAN STANDARD 1187-1996

Farm Milk Cooling & Storage Systems.

As the Australian Standard 1187-1996 is a 19 page document - this summary will not cover all areas. However, the **Cooling Performance Section** is important and a brief outline follows:

1. All refrigeration equipment installed for use on a dairy farm shall be capable of operating continuously in ambient temperatures of 35°C. This same equipment should also be able to operate for two hours in ambient temperatures of 40°C without being shut down by safety cut-outs.
2. All milk cooling and storage vessels shall be able to cool between 10% and 100% of their rated volume without ice forming on any milk contact area.
3. The cooling capacity of the milk vessel shall meet one of the standards listed below:-

a) Everyday collection

Capable of cooling 60% of the tanks rated volume from 35°C. to 4°C. within 3.5 hours from the time product starts to enter the tank. This 60% volume of product is to be added at an equal rate over 1.5 hours.

b) Skip-a-day collection

Capable of cooling 30% of the tanks rated volume from 35°C. to 4°C. within 3.5 hours from the time product starts to enter the tank. This 30% volume of product is added at an equal rate over 1.5 hours.

4. Milk Holding Efficiency

The tank insulation shall be capable of maintaining milk at between 4°C. and 5°C. for a period of 4 hours without the use of refrigeration in an ambient temperature of 35°C. The tank must also be filled to 100% of its rated volume.



LION REFRIGERATION AND GENERATOR SUPPORT SCHEME POLICY

ADDITIONAL INFORMATION

PLATE COOLERS

We will provide the rebate on everything involving the pre-cooling of milk.

This includes the following:

- Water storage tanks in general (above and below ground)
- Ambient pre-cooling systems
- Refrigerated pre-cooling systems
- All piping to and from the plate heat exchanger
- All pumps required to transfer the water within the enclosed system

MILK PUMPS

- If the existing dairy is being retained and a milk pump upgrade is required, then the rebate will be provided to cover all associated milking machine alterations.
- However, if a brand new dairy is being constructed then the cost of the milk pump alone will be rebated.

ELECTRICAL

- The rebate is payable on the cost of connecting all items relevant to the operation of the milk cooling system upgrade.
- No rebate is payable on electrical mains upgrades.



CONCRETE SLAB

- The rebate will be available on the cost of installing a new concrete slab for the milk vat only. No structural work on the milk room is allowed to be rebated.

HOW TO APPLY

The application procedure for the 20% Refrigeration Support Scheme Rebate is as follows:

There are three forms that need to be completed:

1. A **Statutory Declaration** stating the amount of finance spent on the milk cooling system upgrade. This needs to be signed by a registered Justice of the Peace.
2. **Form 1:** This form is the Application for Rebate. It states all the requirements and information that needs to be forwarded with the application.
3. **Form 2:** Equipment Commissioning Sheet. This form is to be completed by the installation company's representative. The form is then held as a record of the systems performance when new. **This form should be made available to the installation mechanic on the day the equipment is installed.**

Form 2 may be forwarded to your DFMC Regional Manager or Lion Farm Services Officer once the milk cooling system is installed. With this we will be able to check that the equipment is running within its designed limits.

Note: The rebate application is not processed until Form 1 is received.

All Forms and required information should then be forwarded to:

Your local DFMC Regional Manager or Lion Farm Services Officer who will then forward the application to Lion.



REFRIGERATION and GENERATOR SUPPORT SCHEME

APPLICATION FOR REBATE

FORM 1

NAME/S:.....

ADDRESS.....
.....

TELEPHONE NO:.....MOB/FAX:.....

TRADING AS:.....

SUPPLIER NO:.....

I / We the above named farmer/s are satisfied with the milk cooling system upgrade or generator recently installed onto our property.

All items are functioning correctly and operating within all stated limits.

I / We wish to apply for the Refrigeration and Generator Support Scheme Rebate, and have enclosed a Statutory Declaration stating the amount of finance spent on the milk cooling system upgrade.

All invoices or certified true copies (paid in full) are included. These invoices will be returned, if requested, once verified by Lion or Dairy Farmers Milk Co-operative.

I / We have read and understand the requirements of the **Refrigeration and Generator Support Scheme Document.**

I / We understand that the **Rebate will cease** if the farm is not accredited under the Lion Simply Perfect Scheme.

I / We understand that if we leave Lion or Dairy Farmers Milk Co-operative and supply another dairy company during the term of the rebate, any money rebated will be **reclaimed from** our last milk cheque.

Printed Names

.....

Signatures

Dated this day the



REFRIGERATION SUPPORT SCHEME

EQUIPMENT COMMISSIONING SHEET

FORM 2

Ibeing a representative of the following company
.....do declare that we have installed and correctly
commissioned all pieces of equipment as listed below.

Milk Vat including Refrigeration and Wash Systems	YES / NO	NF*
Plate-cooler and all Plumbing requirements	YES / NO	NF
Cooling Tower. Ambient or Refrigerated chiller	YES / NO	NF
Milk Pump including all fittings & pipe work	YES / NO	NF
Other as listed	YES / NO	

* (Not fitted)

The equipment listed above was installed for the following supplier.

Name

Address.....

.....

Producer/Supplier Number

Installation Date

THE ATTACHED COMMISSIONING SHEET HAS BEEN COMPLETED AND
WILL BE RETURNED TO LION.

.....
(Signature of Installation/Commissioning Mechanic)

Enclosures Page 1 and Page 2



MILK COOLING SYSTEM COMMISSIONING SHEET

Page 1

Owners Name

.....

Milk Vat Make.....Model.....

Serial NumberRefrigerant

Type.....Capacity.....(litres)

Amount of Milk/Water in VatLitres. Milk Entry Temp

.....°C

Temp of Contents – (when readings were taken)°C Ambient Temp

.....°C

Vat Start TimeVat Shut-Down Time at 3.5°C

.....

COMPRESSORS:	Condensing Unit Number			
	1	2	3	4

Discharge Temp: (°C)

.....

Discharge Press: (Kpa/Psi)

.....

Suction Temp: (°C)

Suction Press: (Kpa/Psi)

Oil Press: Actual/Gauge/N.A :(Kpa/Psi)

.....

Oil Level: Full / 3/4 / 1/2/ 1/4:

.....

Crankcase Temp: (°C)



Liquid Temp: (after condenser) (°C)

.....

L P Cut-in pressure: (Kpa/Psi)

.....

LP Cut-out pressure (Kpa/Psi)

.....

HP Cut-out pressure (Kpa/Psi)

Tested Correct: Yes/No

Comp: Unloading pressure: (Kpa/Psi)

.....

HP Condenser fan cut-in press:

cut out press:

Condenser Air-off Temp: (°C)

Sight Glass Level: (if fitted)

It is most important that the compressors operating limits are monitored very closely during the temperature range from 8°C until shut-down. (eg suction superheat).



MILK COOLING SYSTEM COMMISSIONING SHEET CONT:

Page 2

ELECTRICAL: 1 2 3 4

Mains Voltage (Please circle one) 240 / 415 / 480

Compressor motor amps:

Rated motor amps(Compressor).....

Contactor: Overload Set at:

(Amps).....

Oil Failure control tested (if fitted) Yes/No: **Cut out press.....Psi:**

Timer set atsecs

Agitator activates formins/every..... During the off-cycle: Tested: Yes / No

MILK VAT:

Temp: after refrigerant control device. (°C)

.....

Refrigerant temp out of vat: (°C)

.....

Evaporator pressure: (at Vat) (Kpa/Psi)

Thermostat Cut-in Temperature: (°C)

.....

Refrigeration Condensing Unit Model No's

.....

PLATE COOLER: (if fitted)

Brand Type/Model No:

.....



Water Temperature from storage tank/supply source

..... °C

Milk Temperature leaving place-cooler:

°C

GENERAL ITEMS:

Refrigeration System Leak Test completed: Yes/No Method used:

.....

Notes:

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Lion and Dairy Farmers Milk Co-operative Generator Assistance Scheme

Effective from 1st July 2011

1. Lion and Dairy Farmers Milk Co-operative (DFMC) are able to assist suppliers with the purchase and installation of electrical generators. The purpose of this scheme is to assist with maintenance of milk quality by enabling milk harvesting and milk refrigeration in times of disturbances to power supply.
2. Generators are to be sourced and paid for by individuals, and must be installed by a licensed electrician. The minimum size generator applicable under the Generator Assistance Scheme is 25 KVA.
3. Farmers need to consult with their Lion Farm Services Officer or DFMC Regional Manager who would be required to give prior approval for the type and rating of generator under consideration.
4. DFMC will rebate 20% of the capital and installation cost of an approved generator, up to a maximum of \$4,000 total rebate (maximum of \$20,000 total cost). This will be rebated to suppliers over a three year period. The commencing date of this policy is 01 July 2011, and it is not retrospective.

For more information and advice contact your Lion Farm Services Officer or your DFMC Regional Manager.