

# Regional Infrastructure Development Fund Dairy Power Infrastructure Upgrade Program

## Dairy Power Infrastructure Upgrade Program

Through the Regional Infrastructure Development Fund (RIDF), the Victorian Government provided funding for the Dairy Power Infrastructure Upgrade (DPIU) Program (the Program).

Initially scheduled to close on 30 June 2003, the DPIU Program was extended to 31 October 2004.

Over 260 Victorian dairy farmers participated in the DPIU Program in its four years of operation.

Under the DPIU Program, the Government provided a grant equal to 50% of the farmer's costs of upgrading their power supply infrastructure from Single Wire Earth Return (SWER) or Single Phase to Three Phase.

The Program was administered through a partnership between Regional Development Victoria (RDV) and Electricity Distribution Companies Powercor Australia and TXU Networks (now known as SP AusNet), who also made a contribution to the project cost in accordance with their regulatory obligations.

The Department of Primary Industries and Victorian Farmers Federation also assisted with the implementation of the DPIU Program.

The four core objectives of the DPIU Program were to:

1. **Encourage and facilitate investment in new technology and equipment;**
2. **Improve farm efficiency and productivity;**
3. **Remove impediments to expansion of dairy farms and growth of the industry; and**
4. **Improve the operation and capacity of the electricity distribution network in dairying areas of regional Victoria.**

As part of its commitment to review and report on the effectiveness and outcomes of the RIDF, in 2005 RDV undertook an evaluation of the DPIU Program. The evaluation included focus groups and surveys with participating farmers and interviews with core stakeholders.

The results of the evaluation are summarised below.



## Evaluation – Dairy Power Infrastructure Upgrade Program

### Program Benefits

#### Investment in new technology and equipment

Improved power infrastructure encouraged and facilitated investment in new technology and equipment:

- Farmers strongly agreed that the upgrade provided them with an opportunity to adopt and invest in new technology, both now and into the future.
- The finding of the evaluation supported empirical evidence collected by RDV that:
  1. Farmers previously operating on SWER systems generally upgraded to Three Phase to better operate existing equipment or to enable future investment in new equipment and technology. *“We definitely needed a power upgrade as we couldn’t even use a microwave or electric shaver when the cows were being milked.”*
  2. Farmers previously operating on Single Phase systems often upgraded to Three Phase as part of larger investment in their farm. The average additional investment by surveyed farmers upgrading from Single Phase to Three Phase power was \$106,776. This was made up of investment in new equipment such as new dairies, milk vats, irrigation pumps, feed systems and waste management systems. Farmers mostly agreed that this investment was either driven or enabled by the improved power supply.
- Based on survey results, “flow on” expenditure on new dairying equipment as a result of the power upgrades is likely to have been many millions of dollars, providing additional economic benefits to local manufacturers.

#### Greater farm efficiency and productivity

Improved power infrastructure resulted in greater farm efficiency and productivity:

- The power upgrades enabled improved efficiency and farm management via the purchase and operation of new dairying equipment. For example, Three Phase power enabled the operation of larger milk vats for additional storage, requiring only one milk pickup each day and thereby eliminating the extra charges for second pickups. It was also noted that improved equipment resulted in fewer rejections of milk by dairy companies.
- Installation and operation of irrigation equipment was also enabled by the power upgrades, improving the productivity of farms.
- More than 80% of farmers agreed that the power upgrades improved the operation and viability of their farm. *“The program was worthwhile; on a regular basis single phase would drop out and cause significant damage to our equipment and our milk, resulting in a loss of income.”*

#### Removing impediments to expansion and growth

Power Upgrades remove impediments to expansion of dairy farms and growth of the industry:

- The Program has been successful in removing a major impediment for many dairy farmers – insufficient power. 93% of farmers stated that their power supply had improved, with 81% confirming that their power supply was now acceptable.
- Farmers believed the upgrades enabled them to invest in new technology. The significant “flow on” investment as a result of the upgrades demonstrates this.

- The upgrades also enable future expansion by dairy farmers. *“It allows for the future expansion of our business if required.”*

While there are a number of factors influencing the size of dairy herds and farms:

- Farmers who upgraded their power infrastructure on average increased their land holdings from 595 hectares to 627 hectares.
- Farmers who upgraded their power infrastructure on average increased their herd size from 304 to 333 head.

### **Improving the operation and capacity of the electricity distribution network in dairying areas of regional Victoria**

The power upgrades improved the operation and capacity of the electricity distribution network in dairying areas of regional Victoria:

- Farmers agreed that the upgrades had improved the capacity and the reliability of their supply. Many noted that previously insufficient capacity caused outages and other difficulties when running the dairy, which had significant negative impacts on milking and output.

### **Broader benefits**

Broader benefits were also achieved through the upgrading of power supply:

- The availability of improved power supply improved property values. Daily living standards were also improved where the operation of household appliances had been limited by insufficient power supply.
- It was also noted that more reliable and adequate power improved the work environment for farmers and their staff.

### **Conclusion**

The evaluation found that the power upgrades have, and will continue to be an important mechanism to enable Victorian dairy farmers to invest in equipment and implement new technology, thereby improving the operation and viability of their farm.