



# CERAMIC FUEL CELLS LIMITED

Clean power for your home

31 January 2007

## CERAMIC FUEL CELLS LIMITED

### TRADING UPDATE FOR QUARTER ENDED 31 DECEMBER 2006

Ceramic Fuel Cells Limited ("CFCL" or the "Company"), a world leading manufacturer of solid oxide fuel cells for micro-combined heat and power (m-CHP) units, today announces its trading update and cashflow statement for the second quarter ended 31 December 2006.

#### Highlights of the quarter:

- Signed an exclusive, three way agreement with Gaz de France and De Dietrich for the French residential market
- Established site for volume manufacturing facility on Nuon industrial park in North Rhine Westphalia region of Germany
- Continued to make system improvements to increase efficiency, reduce size and optimise balance of plant components of fuel cell units
- Net operating cash outflow of A\$4.8 million / £1.9 million (Q1: A\$3.0 million / £1.2 million)
- Net cash and financial assets at 31 December 2006 of A\$75 million / £30 million

#### Since the quarter end:

- Secured a site in Merseyside, UK, for the production of ceramic powders

Brendan Dow, Managing Director of Ceramic Fuel Cells, said:

*"The quarter ended 31 December saw significant progress towards the achievement of our business plan and further validation of our approach. The signing of an exclusive, three-way agreement with Gaz de France and boiler manufacturer De Dietrich addresses one of our key target markets and demonstrates our ability to meet our strategic objectives on schedule. With the announcement of the proposed development of a fuel cell foundry also in the quarter, we are on track to deliver commercial volume units to customers in 2009. We look forward to further positive developments in 2007."*

#### For further information please contact:

##### Ceramic Fuel Cells

Andrew Neilson  
Brendan Bilton

Tel: +61 419 950 771  
Tel: +44 (0) 7798 554 191  
Email: [investor@cfcl.com.au](mailto:investor@cfcl.com.au)

##### Hogarth Partnership

Nick Denton / Sarah MacLeod

Tel: +44 (0) 20 7357 9477

## **Financial Review**

Net operating cash outflow for the second quarter was A\$4.8 million, slightly higher than the previous quarter, largely due to higher product development costs of building field trial units. Expenditure in the quarter also included early costs from the Heinsberg fuel cell foundry project.

Capital expenditure was similar to the prior quarter and is expected to increase in coming quarters as the Company upgrades its Melbourne plant and commissions its UK powder plant.

Total cash and financial assets at the end of the quarter was A\$75 million.

## **Operational Review**

### ***Product development agreement with Gaz de France and De Dietrich***

In December, the Company signed an exclusive, three-way agreement with Gaz de France, Europe's leading distributor of natural gas, and De Dietrich Thermique, the largest provider of gas heating systems to the French market, to develop a fully integrated m-CHP for the French residential market, which is a major addressable market for the Company's technology.

### ***EWE partnership***

Work has continued under the Letter of Intent (LOI) signed with EWE in July 2005 on a project to commercialise fuel cell based micro-CHP systems for the German residential market.

In June 2006, EWE signed a contract for ten NetGen<sup>TM</sup> units, in addition to the two field trial units commissioned in January 2006. Two of these NetGen<sup>TM</sup> units will be powered by CFCL's all-ceramic fuel cell stacks and eight will use metal-ceramic stacks. The first NetGen<sup>TM</sup> unit has been delivered and the second is planned to be delivered and commissioned in this quarter. During the first half of 2007 CFCL will build the other eight units – based largely on the existing NetGen<sup>TM</sup> units, with some modifications to suit the metal ceramic stacks and improved core balance of plant. The delivery schedule for these eight NetGen<sup>TM</sup> units will extend into the second half of 2007.

### ***CHP field trials continuing***

The Company is continuing the programme of field trials with customers to test the Company's units and fuel cell stacks in real-world conditions. A significant focus of the early trials was the reliability of the units and the control, safety and electronics systems, all of which met the Company's high performance standards. With regards to electrical output, some of the electricity generated has been exported to the grid. The testing of power output levels and the reliability of the all-ceramic stacks has led to some key improvements which are now incorporated in the new metal-ceramic cell technology.

Field trials provide important data and experience of CFCL's products in use, enabling CFCL to continue to make technological improvements.

### ***Fuel Cell Foundry***

In December, CFCL announced its intention to develop a large-scale manufacturing facility at the Oberbruch industrial park in Heinsberg, Germany, which is owned and managed by Nuon, a leading Dutch energy company. The government of the State of North Rhine-Westphalia is supporting the project with funding of €3.2 million.

Work on the volume manufacturing plant will run in two phases. CFCL has signed a lease for the existing building for phase 1, and secured an option to buy the 'greenfield' land for phase 2. Since the agreement was signed, work has begun to obtain environmental approvals and to prepare the existing building.

The Company will continue to update shareholders on progress during the year.

### ***Powder plant***

Since the quarter end, the Company has secured a site on an industrial park in Bromborough, Merseyside, UK, for the development of a ceramic powder plant. The Company has ordered equipment and is currently reviewing tenders from installation contractors, with equipment installation due in March, commissioning in the second calendar quarter and first powders available for use by September 2007.

One of the objectives set out at the Company's flotation on Aim in March 2006 was to build a plant to make high quality ceramic powders as a key input for the Company's fuel cells, using the Company's proprietary processes. To validate the design and to reduce the installation and scale up risk of the plant, the Company built a demonstration plant in Melbourne which has successfully produced zirconia powder to the correct specifications.

To lead the development of the plant the Company has appointed Mr Phil Wilkinson as operations manager of the UK plant. Mr Wilkinson has significant experience in managing the production of high temperature ceramic fibres. For 20 years he was part of the Thermal Ceramics group at Morgan Crucible, working at the company's ceramic fibre manufacturing and converting facility in the UK. At Ceramic Fuel Cells, Mr Wilkinson will report to Chief Operations Officer John Rajoo.

### ***Melbourne facility***

The Company is currently upgrading its manufacturing plant and expanding its capacity at Noble Park, Melbourne, to make the new metal-ceramic fuel cells and balance of plant components. These upgrades will allow the Company to test and validate the manufacturing processes to be used in the fuel cell foundry in Germany prior to full-scale installation.

Some of the equipment being upgraded includes a new continuous furnace, laser cutting equipment, QC equipment suitable for continuous operation, furnaces for metal coatings and automated dispensing equipment for advanced seals. Upgrade works are scheduled to complete by the end of March 2007.

## **Commercial Performance and Cost**

Since the Company announced the new anode supported cells in September 2006, test results for single cells are promising and confirm that the cells perform according to our design and specification. Test results have shown stable operation and power output, with degradation rates of less than 3% per 1,000 hours on a test of more than 4,000 hours, and improved rates of less than 1% per 1,000 hours on a later test of more than 1,500 hours.

The Company has made and tested a metal-ceramic stack comprising 24 layer sets (ie a metal window frame housing 4 ceramic cells). The Company plans to make two to three 1kW metal-ceramic stacks per week from April 2007. These initial stacks will comprise 54 layer sets, with stack dimensions of 200mm long by 170mm wide by 140mm high, for a volume of 4.8 litres – about 20% lower than the Company's 1kW all-ceramic stacks. The Company's modeling indicates that significant reductions in the height of the final 1kW stack are possible, to 18 layer sets, or a volume of just over 2 litres.

The Company has also optimised the balance of plant components, with initial positive test results, validating the significant efficiency gains and design goals. The new 1kW stacks and balance of plant components will be integrated into NetGen™ units to be delivered to customers during the calendar 2007 year.

**ENDS**

### **About CFCL**

Ceramic Fuel Cells Limited is a world leader in developing solid oxide fuel cell (SOFC) technology to provide reliable, energy efficient, high-quality, and low-emission electricity from widely available natural gas and renewable fuels. Ceramic Fuel Cells is developing SOFC products for small-scale on-site micro combined heat and power (m-CHP) and distributed generation units that co-generate electricity and heat for domestic use.

CFCL was formed in 1992 and is publicly listed on both the London Stock Exchange AIM market and the Australian Stock Exchange (code CFU).

[www.cfcl.com.au](http://www.cfcl.com.au)

# Appendix 4C

## Quarterly report for entities admitted on the basis of commitments

Introduced 31/3/2000. Amended 30/9/2001

Name of entity

CERAMIC FUEL CELLS LIMITED

ABN

82 055 736 671

Quarter ended ("current quarter")

31 DECEMBER 2006

*Consolidated statement of cash flows*

| <b>Cash flows related to operating activities</b>         | Current quarter<br>\$A'000 | Year to date<br>(6 months)<br>\$A'000 |
|---|----------------------------|---------------------------------------|
| 1.1 Receipts from customers                               | 14                         | 144                                   |
| 1.2 Payments for (a) staff costs <sup>1</sup>             | (2,481)                    | (4,948)                               |
| (b) advertising and marketing <sup>2</sup>                | (190)                      | (414)                                 |
| (c) research and development <sup>3</sup>                 | (1,562)                    | (2,338)                               |
| (d) leased assets   | -                          | -                                     |
| (e) other working capital                                 | (1,635)                    | (2,459)                               |
| 1.3 Dividends received                                    | -                          | -                                     |
| 1.4 Interest and other items of a similar nature received | 678                        | 1,680                                 |
| 1.5 Interest and other costs of finance paid              | -                          | -                                     |
| 1.6 Income taxes paid                                     | -                          | -                                     |
| 1.7 Other   |                            |                                       |
| - Net GST Received/(Paid)                                 | 294                        | 455                                   |
| - Export Market Development Grant received                | -                          | -                                     |
| - Sundry income received                                  | 4                          | 4                                     |
| <b>Net operating cash flows</b>                           | <b>(4,878)</b>             | <b>(7,876)</b>                        |

Notes

1. 'Staff costs' includes all company labour and associated headcount costs, and therefore incorporates all Research & Development (R&D) staff, Sales & Marketing (S&M) staff and General & Administrative (G&A) staff.
2. 'Advertising and marketing' excludes all S&M staff costs (as per note 1 above).
3. 'Research and development' costs includes all R&D costs as defined in Note 1(e) to the Financial Statements for the year ended 30 June 2006, but excludes all R&D staff costs (as per note 1 above).

|   |  | Current quarter | Year to date          |
|---|--|-----------------|-----------------------|
|   |  | \$A'000         | (6 months)<br>\$A'000 |
| 1.8   | Net operating cash flows (carried forward)                         | <b>(4,878)</b>  | <b>(7,876)</b>        |
| <b>Cash flows related to investing activities</b> |  |                 |                       |
| 1.9   | Payment for acquisition of:  |                 |                       |
|   | (a) businesses (item 5)  | -               | -                     |
|   | (b) equity investments   | -               | -                     |
|   | (c) intellectual property  | -               | -                     |
|   | (d) physical non-current assets                                    | (1,561)         | (2,974)               |
|   | (e) other non-current assets                                       | -               | -                     |
| 1.10  | Proceeds from disposal of:   |                 |                       |
|   | (a) businesses (item 5)  | -               | -                     |
|   | (b) equity investments   | -               | -                     |
|   | (c) intellectual property  | -               | -                     |
|   | (d) physical non-current assets                                    | -               | -                     |
|   | (e) other non-current assets                                       | -               | -                     |
| 1.11  | Loans to other entities  | -               | -                     |
| 1.12  | Loans repaid by other entities                                     | -               | -                     |
| 1.13  | Other  | -               | -                     |
|   | <b>Net investing cash flows</b>                                    | <b>(1,561)</b>  | <b>(2,974)</b>        |
| <b>1.14</b>                                       | <b>Total operating and investing cash flows</b>                    | <b>(6,439)</b>  | <b>(10,850)</b>       |
| <b>Cash flows related to financing activities</b> |  |                 |                       |
| 1.15  | Proceeds from issues of shares, options, etc.                      | -               | -                     |
| 1.16  | Proceeds from sale of forfeited shares                             | -               | -                     |
| 1.17  | Proceeds from borrowings   | -               | -                     |
| 1.18  | Repayment of borrowings  | -               | -                     |
| 1.19  | Dividends paid   | -               | -                     |
| 1.20  | Other - Financial assets: Net proceeds/(Net payments) <sup>1</sup> | 6,279           | 3,184                 |
|   | Other - Share issue costs  | (31)            | (31)                  |
|   | <b>Net financing cash flows</b>                                    | <b>(6,248)</b>  | <b>3,153</b>          |
|   | <b>Net increase (decrease) in cash held</b>                        | <b>(191)</b>    | <b>(7,697)</b>        |
| 1.21  | Cash at beginning of quarter/year to date                          | 3,780           | 11,367                |
| 1.22  | Exchange rate adjustments on foreign currency cash balances        | (276)           | (357)                 |
| 1.23  | <b>Cash at end of quarter</b>                                      | <b>3,313</b>    | <b>3,313</b>          |
|   | Funds held in Financial Assets                                     | 71,763          | 71,763                |
|   | <b>Total Cash and Financial Assets</b>                             | <b>75,076</b>   | <b>75,076</b>         |

1. The net proceeds/(payments) from the disposal and purchase of the company's investments are at item 1.20.

## Payments to directors of the entity and associates of the directors

## Payments to related entities of the entity and associates of the related entities

|      |  | Current quarter<br>\$A'000 |
|------|--|----------------------------|
| 1.24 | Aggregate amount of payments to the parties included in item 1.2 | 92                         |
| 1.25 | Aggregate amount of loans to the parties included in item 1.11   | -                          |

1.26 Explanation necessary for an understanding of the transactions

Directors' fees.

## Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

NIL

2.2 Details of outlays made by other entities to establish or increase their share in businesses in which the reporting entity has an interest

NIL

## Financing facilities available

*Add notes as necessary for an understanding of the position. (See AASB 1026 paragraph 12.2).*

|     |                             | Amount available<br>\$A'000 | Amount used<br>\$A'000 |
|-----|-----------------------------|-----------------------------|------------------------|
| 3.1 | Loan facilities             | -                           | -                      |
| 3.2 | Credit standby arrangements | -                           | -                      |

## Reconciliation of cash

| Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows. |                              | Current quarter<br>\$A'000 | Previous quarter<br>\$A'000 |
|---|------------------------------|----------------------------|-----------------------------|
| 4.1   | Cash on hand and at bank     | 3,129                      | 595                         |
| 4.2   | Deposits at call             | -                          | 3,001                       |
| 4.3   | Bank overdraft               | -                          | -                           |
| 4.4   | Other<br>- Security deposits | 184                        | 184                         |
| <b>Total: cash at end of quarter (item 1.23)</b>  |                              | <b>3,313</b>               | <b>3,780</b>                |
| Financial Assets  |                              | 71,763                     | 78,406                      |
| <b>Total Cash and Financial Assets at end of quarter</b>  |                              | <b>75,076</b>              | <b>82,186</b>               |

## Acquisitions and disposals of business entities

|     |   | Acquisitions<br>(Item 1.9(a)) | Disposals<br>(Item 1.10(a)) |
|-----|---|-------------------------------|-----------------------------|
| 5.1 | Name of entity                            | Not applicable                | Not applicable              |
| 5.2 | Place of incorporation or registration    |                               |                             |
| 5.3 | Consideration for acquisition or disposal |                               |                             |
| 5.4 | Total net assets                          |                               |                             |
| 5.5 | Nature of business                        |                               |                             |

## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act (except to the extent that information is not required because of note 2) or other standards acceptable to ASX.
- 2 This statement does give a true and fair view of the matters disclosed.

David Carruthers  
Director

Date: 30 January 2007

## Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
2. The definitions in, and provisions of, *AASB 1026: Statement of Cash Flows* apply to this report except for the paragraphs of the Standard set out below.
  - 6.2 - reconciliation of cash flows arising from operating activities to operating profit or loss
  - 9.2 - itemised disclosure relating to acquisitions
  - 9.4 - itemised disclosure relating to disposals
  - 12.1(a)- policy for classification of cash items
  - 12.3 - disclosure of restrictions on use of cash
  - 13.1 - comparative information
3. **Accounting Standards.** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.