**NATIONAL ASSEMBLY**

**QUESTIONS FOR WRITTEN REPLY**

**FRIDAY, 27 NOVEMBER 2020**

**DUE DATE: 11 DECEMBER 2020**

**2934. Mr N F Shivambu (EFF) to ask the President of the Republic:**

With reference to his statement at the third annual South African Investment Conference held on 18 November 2020, that the Republic’s automotive sector has over the past few months developed and manufactured 20 000 ventilators for COVID-19 patients, (a) who produced the ventilators, (b)(i) on what date and (ii) where were the ventilators produced and (c) in which hospitals are the ventilators placed? NW3759E

**REPLY**

At the beginning of the COVID-19 national state of disaster, the Department of Trade, Industry and Competition (**the dtic**) with the support of the Department of Science and Innovation (DSI), established the National Ventilator Project (NVP) to draw on expertise and know-how in South Africa to develop ventilators for use on COVID-19 patients.

This was necessitated by a global shortage of all types of ventilators and it also fitted in well with the re-imagined industrial strategy, which is focused on finding opportunities to manufacture product locally.

The South African Radio Astronomy Observatory (SARAO), which houses a number of engineers who are working on the Square Kilometer Array (SKA) project, was mandated to manage the national effort to design, develop and produce the respiratory ventilators to support the government’s response to combat the COVID-19 pandemic. The agency was used because of the experience its engineers gained in the development of complex systems for the MeerKAT radio telescope system in the Karoo, the precursor to the SKA.

The project drew in many companies and public entities based in South Africa, from engineers, to automotive component manufacturers and production specialists.

Based on advice from clinicians, the project elected to focus in the initial phase on the production of continuous positive airway pressure (CPAP) ventilators, which were identified as the ones most appropriate to support COVID-19 patients.

A total of 20,000 CPAP ventilators have now been produced in South Africa under the NVP. These ventilators have been produced by two locally licensed manufacturers, namely the state-owned Council for Scientific and Industrial Research (CSIR) and the South African Ventilator Emergency Project (SAVE-P) – a consortium of companies.

Production began in late July 2020 and the final units were completed during the month of November 2020. The 20.000 units produced include the following:

* 18,000 Venturi-type CPAP devices manufactured through a contract with the CSIR; and
* 2,000 blender-type CPAP devices manufactured by SAVE-P.

The CSIR ventilator systems were assembled and packaged by Akacia Medical in the Western Cape. Individual components for the CPAP-ventilator were manufactured by a consortium of industry partners in Gauteng, KwaZulu-Natal and Eastern Cape, including the Central University of Technology and firms such as Black Capital Systems, Andani Futuretech Manufacturing, UV Tooling, Sola Medical, Gabler Medical and Pitchline Engineering. All manufacturing was done for the CSIR.

The SAVE-P consortium incorporates manufacturers located in Cape Town, Pinetown, Durban, Midrand and Alberton, consisting of MCR Manufacturing, Reef Engineering, Bosch, Executive Engineering, Rhomberg Instruments, Dowclay Products, ISO Health SA, Pegasus Steel, NAACAM, AFRIT, Corruseal, New Age Medical Supplies, Aveti and Non-Ferrous Metal Works.

The development, production and procurement cost for the 20,000 units was funded through a R250 million donation from the Solidarity Fund.

On 24 August 2020, the Solidarity Fund handed over the first units to the Charlotte Maxeke Johannesburg Academic Hospital. The project managers advised that units have already been distributed to 69 public healthcare facilities in each of the nine provinces. A list of those hospitals which have received CPAP devices are attached to this reply as Annexure A.

In addition to the 20,000 devices produced by CSIR and SAVE-P with funding support from the Solidarity Fund, a further 300 devices have been produced by Sabertek on a commercial basis. The project managers advise that 100 of these units have been purchased already, with some units exported to Malaysia and Namibia.

We are pleased that the combination of lockdown measures early in the pandemic, which flattened the curve of infection, and the National Ventilator Project enabled the health-care system to provide the necessary ventilation support when required. A longer-term legacy of the project is that there are now 20,000 more CPAP ventilators available for use than before the pandemic.

**ANNEXURE A: List of public healthcare facilities which have received CPAP ventilators from the NVP**

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| Province: | Facility name: |
|
| Eastern Cape | Nelson Mandela Academic Hospital |
| Frere Hospital |
| Livingstone Hospital |
| Port Elizabeth Provincial Hospital |
| Cecilia Makiwane Hospital |
| Frontier Hospital |
| Dora Nginza Hospital |
| Mthatha General Hospital |
| St Elizabeth's Hospital |
| Free State | Universitas (C) Hospital |
| Pelonomi Hospital |
| Boitumelo Hospital |
| Bongani Hospital |
| Mofumahadi Manapo Mopeli Hospital |
| Gauteng | Charlotte Maxeke Hospital |
| Pholosong Hospital |
| Far East Rand Hospital |
| Leratong Hospital |
| Chris Hani Baragwanath Hospital |
| Sebokeng Hospital |
| Thelle Mogoerane Regional Hospital |
| Dr George Mukhari Hospital |
| Helen Joseph Hospital |
| Tambo Memorial Hospital |
| Steve Biko Academic Hospital |
| Kalafong Hospital |
| Tembisa Hospital  |
| Edenvale Hospital |
| Rahima Moosa Hospital |
| Mamelodi Hospital |
| Qualihealth |
| KwaZulu-Natal | Inkosi Albert Luthuli Central Hospital |
| King Edward VIII Hospital |
| Ngwelezana Hospital |
| Grey's Hospital |
| Addington Hospital |
| King Dinuzulu Hospital |
| Mahatma Gandhi Hospital |
| Prince Mshiyeni Memorial Hospital |
| RK Khan Hospital |
| St Aidans Hospital |
| Edendale Hospital |
| Madadeni Hospital |
| Newcastle Hospital |
| Pixely Isaka ka Seme |
| General Justice Gizenga Hospital |
| Queen Nandi Regional Hospital |
| Port Shepstone Hospital |
| Ladysmith Hospital |
| Limpopo | Mankweng Hospital |
| Pietersburg Hospital |
| Letaba Hospital |
| Philadelphia Hospital |
| St Rita's Hospital |
| Tshilidzini Hospital |
| Mokopane Hospital |
| Mpumalanga | Rob Ferreira Hospital |
| Witbank Hospital |
| Mapulaneng Hospital |
| Themba Hospital |
| Ermelo Hospital |
| North West | Job Shimankana Tabane Hospital |
| Klerksdorp-Tshepong Tertiary Hospital |
| Mahikeng Provincial Hospital |
| Joe Morolong Memorial Hospital |
| Potchefstroom Hospital |
| Northern Cape | Robert Mangaliso Sobukwe Hospital |
| Dr Harry Surtie Hospital |
| Western Cape | Groote Schuur Hospital |