



# INTERNATIONAL PARTNERSHIP FOR HYDROGEN AND FUEL CELLS IN THE ECONOMY

## IPHE Country Update June 2021: South Africa

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<b>Covered Period</b>	December 2020 to June 2021

### 1. New Initiatives, Programs, and Policies on Hydrogen and Fuel Cells

On 17 December 2020, President Cyril Ramaphosa appointed members of the inaugural Presidential Climate Change Coordinating Commission (P4C). The Commission, Chaired by the President, is tasked with advising on South Africa's climate change response, including mitigation and adaptation to climate change and associated impacts. The P4C will also provide independent monitoring and review of South Africa's progress in meeting its emissions reduction and adaptation goals as well as advise on and facilitate a common understanding of a just transition. [http://www.thepresidency.gov.za > press-statements](http://www.thepresidency.gov.za/press-statements)

On 10 June 2021, President Ramaphosa announced that companies will be able to generate and even sell-on electricity up to 100MW, without a license. This was increased from a previous cap of 1MW. <https://www.businesslive.co.za>

### 2. Hydrogen and Fuel Cell R&D Update

No significant updates to report during the period.

### 3. Demonstration, Deployments, and Workforce Developments Update

The Department of Science and Innovation, Anglo American Platinum, Bambili Energy and Engie formally announced their collaboration on the Hydrogen Valley (Platinum Valley) Feasibility Study. The study will look at the viability of running hydrogen fuel cell powered trucks and buses along the N1/N3 corridor stretching from Anglo American Platinum's Mogalakwena mine in Limpopo, through Johannesburg and ending in Durban. The Platinum Valley will leverage existing facilities on either side of the corridor to stimulate the development of hydrogen production hubs and infrastructure to support both the mobility and stationary applications.

### 4. Events and Solicitations

The Stakeholder Collaboration Workshop for the Hydrogen Society Roadmap (HSRM) will be held on 14 July 2021. The Collaboration Workshop will bring together stakeholders from government, private sector, civil society and the international community to engage with the draft document and provide further inputs as part of preparing the document for submission to Cabinet later in the year.

### 5. Investments: Government and Collaborative Hydrogen and Fuel Cell Funding

Confirmed funding levels will be reported during the next Steering Committee Meeting.

### 6. Regulations, Codes & Standards, and Safety Update

No significant updates to report during the period.



## Summary Country Update June 2021: South Africa

Transportation	Target Number	Current Status	Partnerships, Strategic Approach	Support Mechanism
Fuel Cell Vehicles <sup>1</sup>	No target	0	N/A	N/A
FC Bus	555 by 2030	0	Government and Private sector Consortium	Platinum Valley Initiative with cofounding from Partners. Further support mechanism still to be determined
Fuel Cell Trucks <sup>2</sup>	555 by 2030	0	Government and Private sector Consortium	Platinum Valley Initiative with cofounding from Partners. Further support mechanism still to be determined
Forklifts	No target	2	Government/Private sector	No support policy
H <sub>2</sub> Refueling Stations	Target Number	Current Status	Partnerships, Strategic Approach	Support Mechanism
70 MPa On-Site Production	No target	0	N/A	N/A
70 MPa Delivered	No target	0	N/A	N/A
35 MPa On-Site Production	No target	1	N/A	N/A
35 MPa Delivered	No target	1	N/A	N/A

<sup>1</sup> Includes Fuel Cell Electric Vehicles with Range Extenders

<sup>2</sup> As above



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Stationary	Target Number <sup>3</sup>	Current Status	Partnerships, Strategic Approach	Support Mechanism
Small <sup>4</sup>	e.g., YY units by 2020	10	Government and Private sector	Government funding
Medium <sup>5</sup>	e.g., TT units by 2020	1 x 100kW	Government/Minerals Council	Consortium funding including government
Large <sup>6</sup>	e.g., No target	0	N/A	N/A
District Grid <sup>7</sup>		0	N/A	N/A
Regional Grid <sup>8</sup>			N/A	N/A
Telecom backup	e.g., No target	>300	N/A	Private sector funded
H <sub>2</sub> Production	Target <sup>9</sup>	Current Status	Partnerships, Strategic Approach	Support Mechanism
Fossil Fuels <sup>10</sup>	No target	1.4Mt	N/A	N/A
Water Electrolysis <sup>11</sup> (PEM, Alkaline, SOEC)	No target	N/A	N/A	N/A
By-product H <sub>2</sub>	No target	~9 tonnes/day	N/A	N/A

<sup>3</sup> Targets can be units installed and/or total installed capacity in the size range indicated

<sup>4</sup> <5 kW (e.g., Residential Use)

<sup>5</sup> 5kW – 400 kW (e.g., Distributed Residential Use)

<sup>6</sup> 0.3MW – 10 MW (e.g., Industrial Use)

<sup>7</sup> 1MW – 30 MW (e.g., Grid Stability, Ancillary Services)

<sup>8</sup> 30MW plus (e.g., Grid Storage and Systems Management)

<sup>9</sup> Target can be by quantity (Nm<sup>3</sup>, kg, t) and by percentage of total production; also, reference to efficiency capabilities can be a target

<sup>10</sup> Hydrogen produced by reforming processes

<sup>11</sup> Please indicate if targets relate to a specific technology (PEM, Alkaline, SOEC)



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Energy Storage from Renewables	Target <sup>12</sup>	Current Status	Partnership, Strategic Approach	Support Mechanism
Installed Electrolyser Capacity	No target	N/A	N/A	N/A
Power to Power <sup>13</sup> Capacity	No target	N/A	N/A	N/A
Power to Gas <sup>14</sup> Capacity	No target	N/A	N/A	N/A

<sup>12</sup> Can be expressed in MW of Installed Capacity to use the electricity from renewable energy generation, and Annual MWh of stored energy capacity

<sup>13</sup> Operator has an obligation to return the electricity stored through the use of hydrogen back to electricity

<sup>14</sup> Operator has the opportunity to provide the stored energy in the form of hydrogen back to the energy system through multiple channels (e.g., merchant product, enriched natural gas, synthetic methane for transportation, heating, electricity)