

### **IPHE Country Update April 2017: Iceland**

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Covered Period	2015-2016

#### 1. New Policy Initiatives on Hydrogen and Fuel Cell

The government's goal is to be technology neutral and for the last few years, or since 2012, there has been strong tax incentives in Iceland for ZEV – i.e. no taxes at all, not even VAT. Currently a new strategy paper is being introduced to the government which emphasizes that these incentives and technological neutrality has to continue as a goal. The current suggestion is to have a quota on ZEVs that is a tax-free environment until there are a certain number of ZEVs on the road, or a timeline, which could be 2020 - 2022. Final decision on the action and taxation strategy for all fuels, fossil or non-fossil, is expected in 2017.

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

Nothing to report.

#### 3. Demonstration and Deployments Update

In 2018, three hydrogen-refuelling stations (HRS) will be built in and around Reykjavik. A minimum of 25 cars will be deployed in 2018 with the HRS. The aim is to increase this vehicle fleet.

Discussions have started regarding potential bus deployments following the initial vehicle fleet with one of the HRS built with dispensing capabilities for buses. All hydrogen will be produced via electrolyser using renewable energy.

#### 4. Events and Solicitations

Icelandic players just hosted an event in March officially launching the H2ME project in Iceland (see 3 above).

Icelandic companies are also active in the Nordic Hydrogen cooperation – lead through the Scandinavian Hydrogen Highway project. Jointly the Nordic countries will host a Nordic Hydrogen conference and the next planned conference is in Iceland – autumn 2018.

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

Nothing new to report.



### **Summary Country Update April 2017: Iceland**

Transportation	Target Number	Current Status	Partnerships, Strategic Approach	Policy Support
Fuel Cell Vehicles <sup>1</sup>	>80 by 2020	0	Cooperation with Nordic deployment strategies, specifically via the H2ME projects.	No import taxes on vehicles
FC Bus	~5 by 2020	0		
Fuel Cell Trucks <sup>2</sup>	N.A.			
Forklifts	N.A.			
H <sub>2</sub> Refueling Stations	Target Number	Current Status	Partnerships, Strategic Approach	Policy Support
70 MPa On-Site Production	1 by 2018	0	Cooperation with Nordic deployment strategies, specifically via the H2ME projects.	No fuel taxes
70 MPa Delivered	2 by 2018	0		
35 MPa On-Site Production	N.A.			
35 MPa Delivered	N.A.			

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

<sup>&</sup>lt;sup>2</sup> As above



Stationary	Target Number <sup>3</sup>	Current Status	Partnerships, Strategic Approach	Policy Support
Small⁴	N.A.			
Medium <sup>5</sup>	N.A.			
Large <sup>6</sup>	N.A.			
District Grid <sup>7</sup>	N.A.			
Regional Grid <sup>8</sup>	N.A.			
Telecom backup	N.A.			
H₂ Production	Target <sup>9</sup>	Current Status	Partnerships, Strategic Approach	Policy Support
Fossil Fuels <sup>10</sup>				
Water Electrolysis <sup>11</sup> (PEM, Alkaline, SOEC)	All hydrogen production in Iceland will be from renewables			
By-product H <sub>2</sub>				

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

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

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

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

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

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

<sup>&</sup>lt;sup>9</sup> Target can be by quantity (Nm³, kg, t) and by percentage of total production; also, reference to efficiency capabilities can be a target

<sup>&</sup>lt;sup>10</sup> Hydrogen produced by reforming processes

<sup>&</sup>lt;sup>11</sup> Please indicate if targets relate to a specific technology (PEM, Alkiline, SOEC)



Energy Storage from Renewables	Target <sup>12</sup>	Current Status	Partnership, Strategic Approach	Policy Support
Power to Power <sup>13</sup> Capacity	N.A.			
Power to Gas <sup>14</sup> Capacity	N.A.			

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

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)