

Investor Relations 2019

Doosan Fuel Cell IR Presentation

November 2019



Disclaimer

The information herein is provided for your information purposes only and contains preliminary figures which may be materially different from the final figures.

Forecasts and projections contained in this material are based on current business environments and management strategies, and they may differ from the actual results upon changes and unaccounted variables. We make no guarantees and assume no responsibility for the use of information provided. We trust your decisions will be based on your own independent judgment.

Financial data in this presentation is on a IFRS consolidated basis.

01. Company Overview

Company Overview

<u>Name</u>	Doosan Fuelcell
<u>Establishment</u>	2019.10.01
<u>Listing</u>	2019.10.18(KOSPI)
<u>Assets</u>	422 KRW bn¹⁾
<u>Employees</u>	312
<u>Head Office</u>	627 Seodong-ro, Iksan-si, Jeollabuk-do

1) ' As of 4Q18

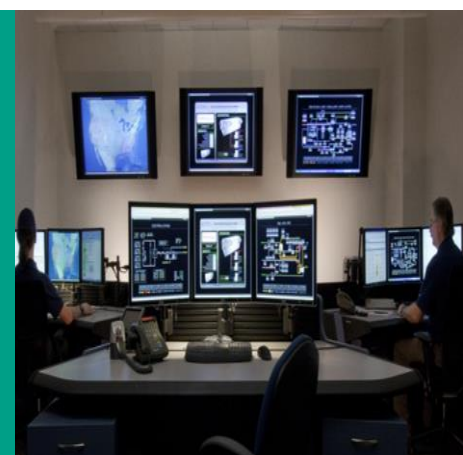
Introduction of business

Supply of fuel cell for power generation



Provide fuel cell generating power and heat

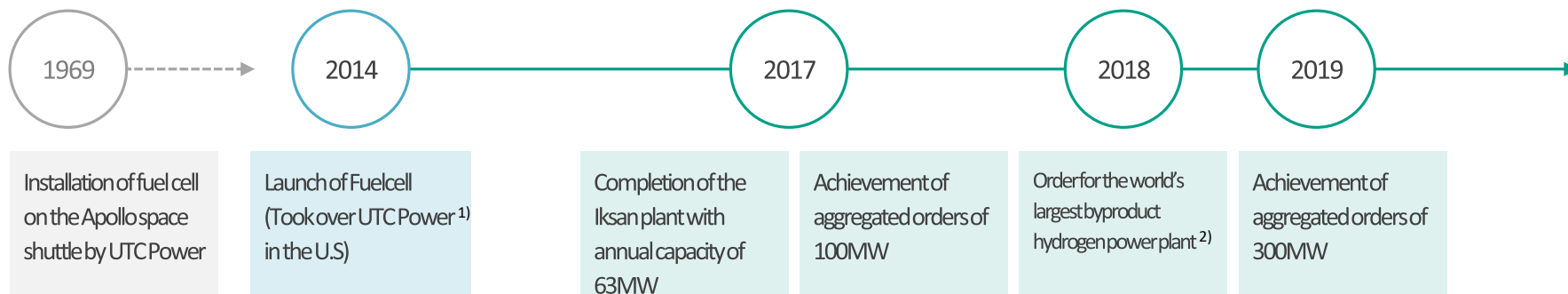
Long-term maintenance service offer



Provide stable maintenance/management service of the plant for 20 years

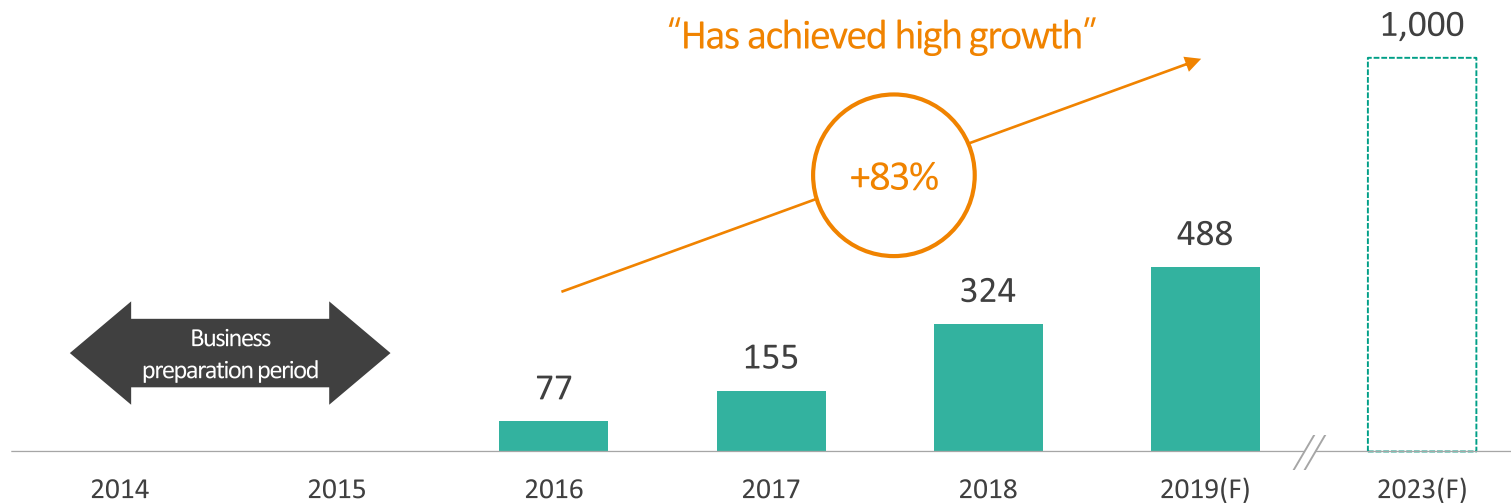
02. Business History and Doosan Fuelcell after Spin-off

Jump up to be a leading company in fuel cell for power generation, sales expected to reach 1 KRW tn by 2023



Sales Trend

(in KRW bn)



1) Took over fuel cell business of UTC Power in 2013

2) Hanwha Total Petrochemical 50.16MW

03. Stable High-growth Market Outlook (1/2)

The market is expected to grow stably based on the increase in RPS¹⁾ obligatory renewable service supply ratio and policy support

Stable expansion of market

1 Continued expansion of the increase in RPS Market

- Initial +0.5%pt~+3.0%pt increase expected

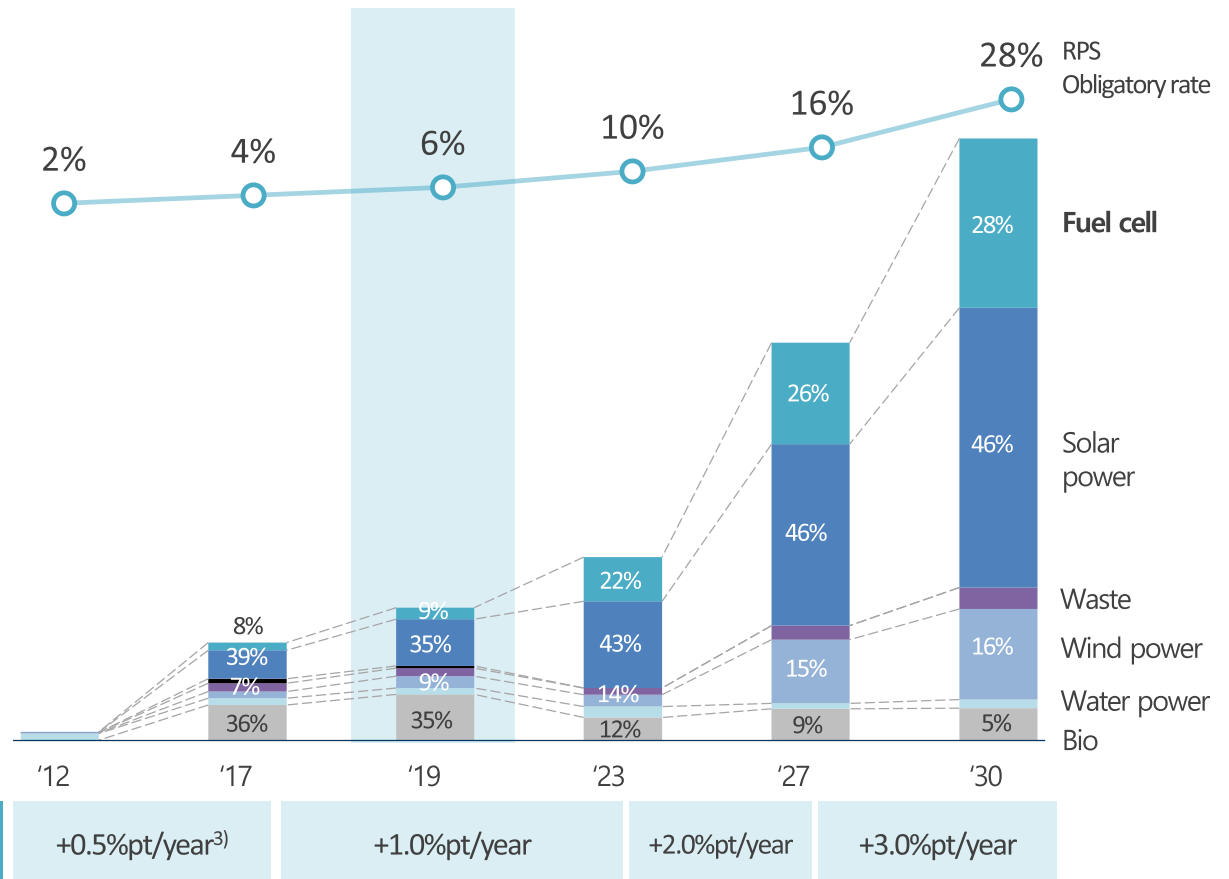
2 Competitiveness against other power sources

- Short installation period, small installation area
- Distributed generation installable near residential area
- Eco-friendly clean power plant

3 Continued friendly business environment

- Roadmap for Hydrogen Economy
- Fuel cell exclusive rate
- Expansion of fuel cell installation plans by GENCO

RPS obligatory renewable service supply ratio and composition by power source²⁾



1) Renewable Portfolio Standard : A system that enforces power producers to supply a certain amount of the total power generation by new and renewable energy

2) Capacity calculated inversely based on power generation (92% fuel cell operation rate assumed)

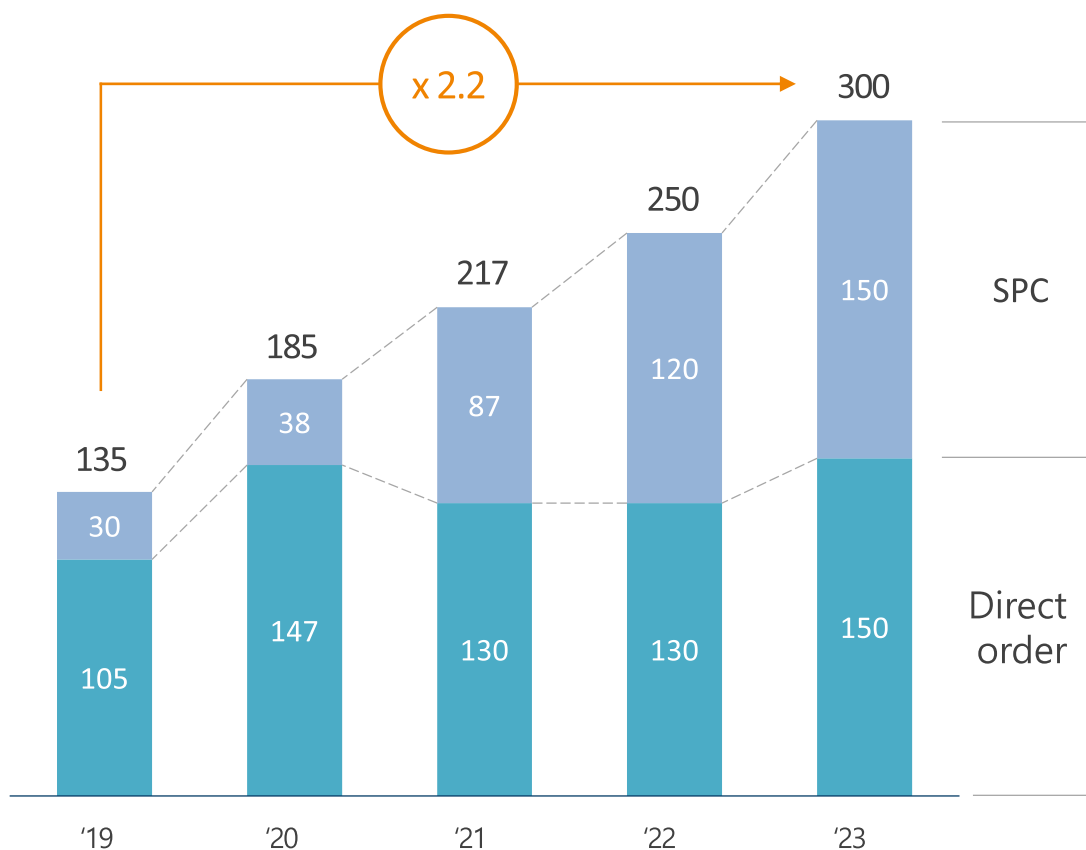
3) Excluding 2015 (3% is the same as 2014 without a rise)

03. Stable High-growth Market Outlook (1/2)

300MW-market is certainly expected by 2023 and there is additional market potential when considering SPC PJT under development

- Considered PJT with higher feasibility among GENCO's plan and SPC PJT pool

(Unit : MW)



SPC Capacity approved
by Electricity Commission ~2GW

70 projects of 2GW under development

Existing owners
0.4GW

New owners
1.6GW

Stable plan of GENCO¹⁾

'18
0.2GW

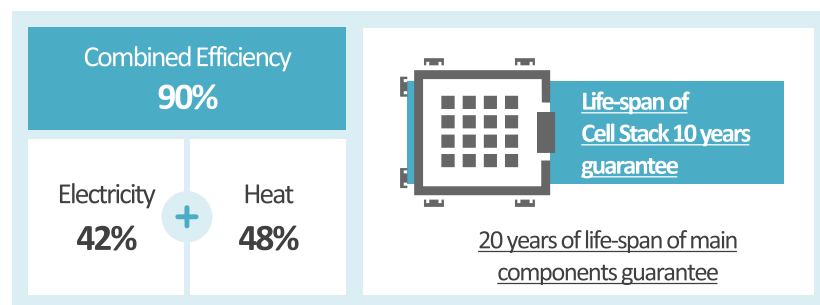
'30
2.5GW

1) Accumulated basis

04. Unique Position in the Market

Domestic market leader with commercially proven PAFC based technology

High CHP¹⁾ efficiency and long life-span based on PAFC



Commercialization of the world's first/largest multi-storied/hydrogen fuel cell plant



Busan Green Energy (30MW)

The world's first/largest multi-storied fuel cell plant



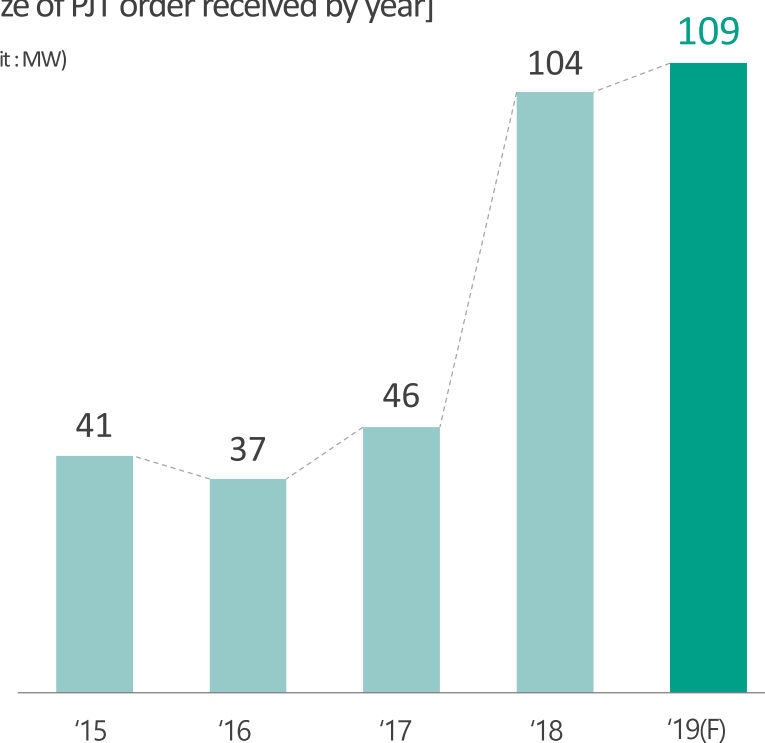
Hanwha Total Petrochemical (50MW)

The world's first/largest byproduct hydrogen fuel cell plant

No.1 with a 79 percent M/S in 2015~2019(F)

[Size of PJT order received by year]²⁾

(Unit: MW)



Annual RPS
Obligatory ratio
increment

+0.5%pt/year

+1.0%pt/year

2) Orders received in 2018 due to delay are reflected in 2017

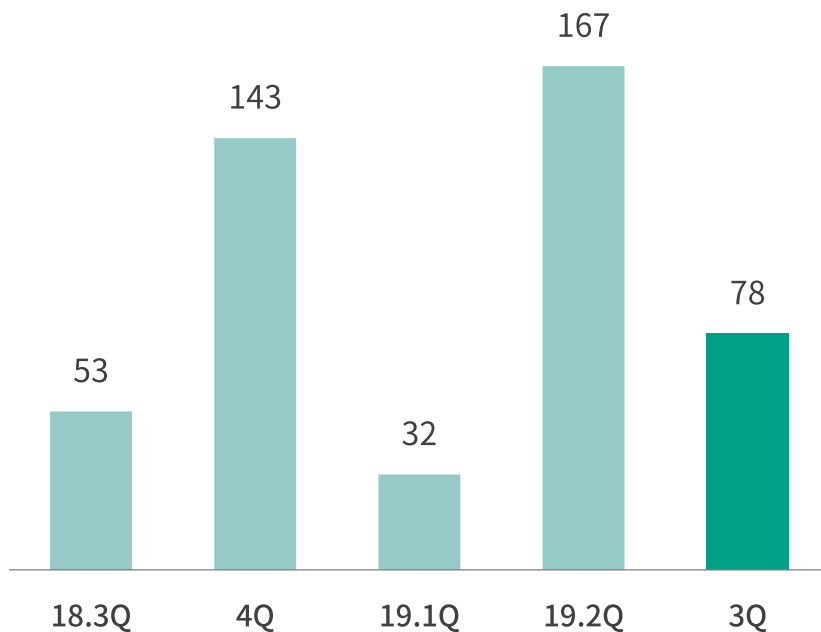
1) Combined Heat & Power

05. 3Q 2019 Results (1/2)

- 3Q19 Sales revenue declined QoQ due to decreased sales based on customer delivery schedules
- 4Q19 sales revenue and operating income are expected to turn around based on confirmed sales from previous orders

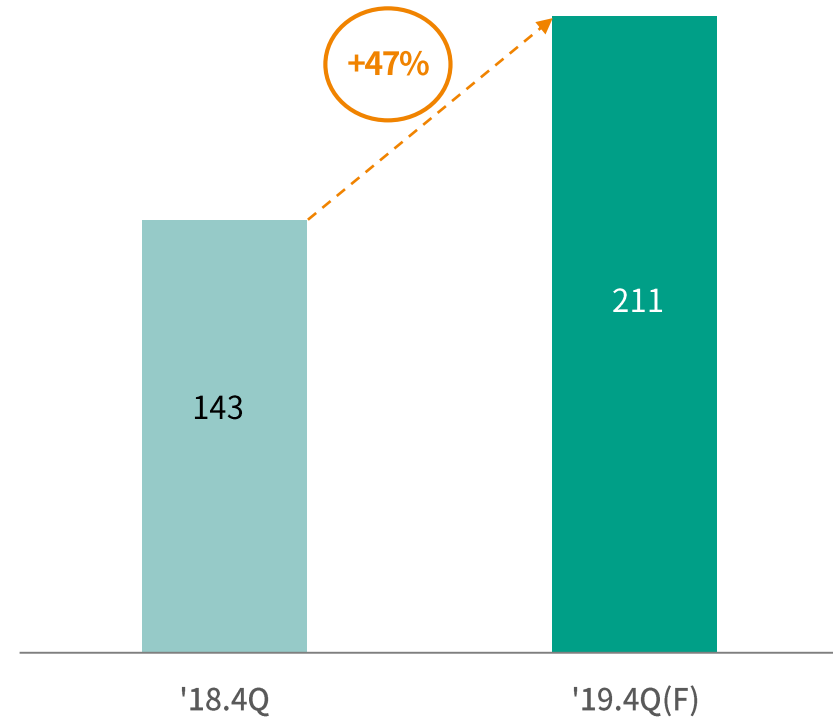
[Quarterly Sales Revenue]

(in KRW bn)



[4Q 2019 Outlook]

(in KRW bn)



05. 3Q 2019 Results (2/2)

- Achieved KRW 189bn of order amounts in 3Q19 and accumulated order has amounted to 637KRW bn
- Total order amount in 2019 is expected to be 1 KRW tn+ α when orders under negotiation are contracted in 4Q19
- Expects to achieve more than 1 KRW tn of order amounts in 2019 following 2018

[New Orders by Quarter]

(in KRW bn)

