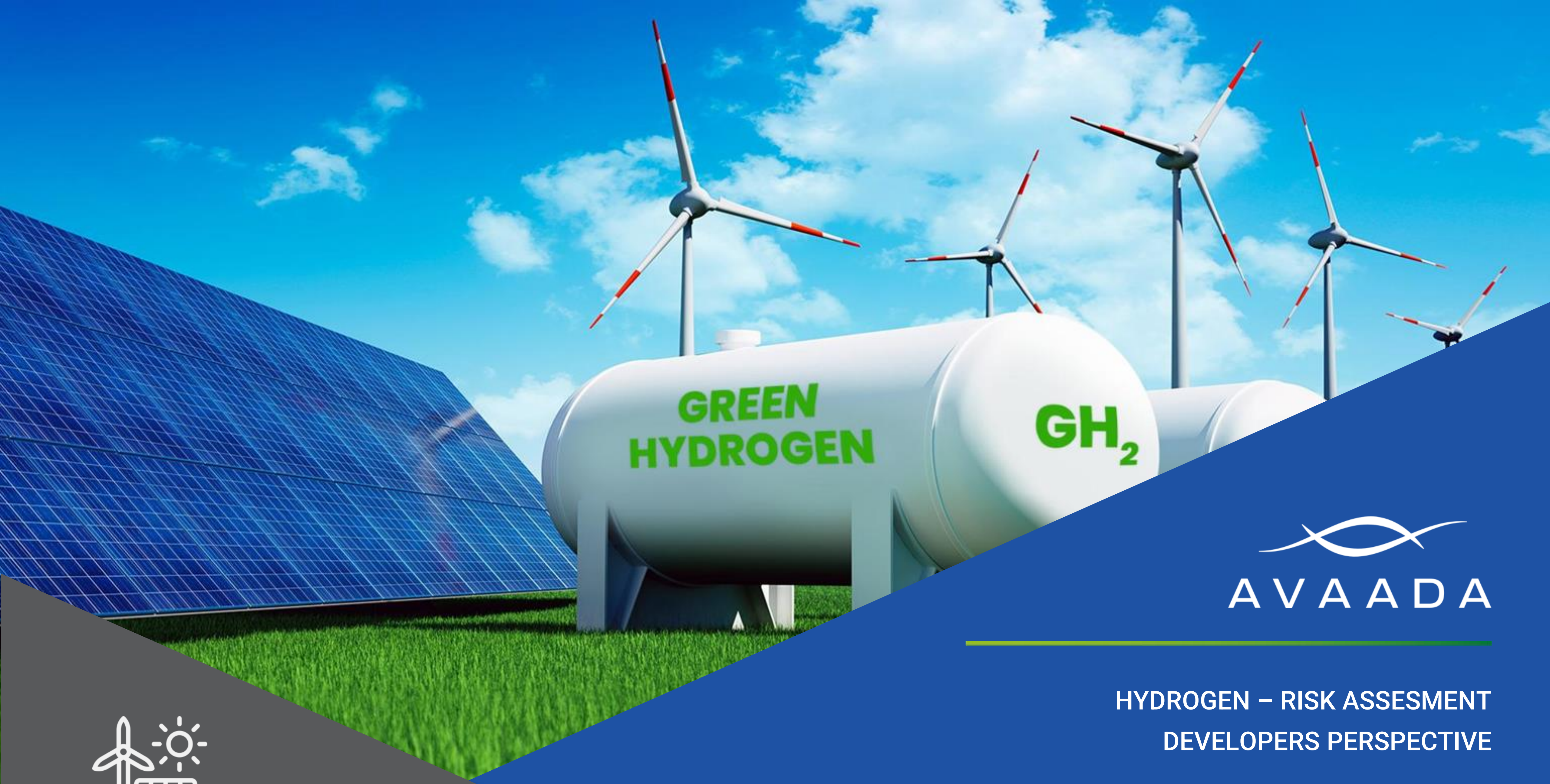

AVAADA

HYDROGEN – RISK ASSESMENT
DEVELOPERS PERSPECTIVE

JOURNEY/ MILESTONES

Avaada is a leading player in Indian solar space and its glorious journey in the last decade comprised of many ‘firsts’ in the sector

2011
Commissioned 15 MW solar project in Gujarat followed by 5 MW each in Rajasthan, Andhra Pradesh & Gujarat.

2012
Commissioned India’s largest single location solar project i.e. 55 MW Rajasthan and 30 MW solar project in Gujarat.

2013
Collaboration with ADB, DEG and GE as equity investors.

- Commissioned Asia’s largest and World’s 2nd largest solar project of 151 MWp in Madhya Pradesh.

2014
Our entry into self development of wind project with 126 MW Wind project in Rajasthan.

2016
Provided successful exit to investors with sale of operational portfolio of ~1.2 GW to Tata power.

- Demerger and rechristening of company to Avaada Energy.
- Capacity addition of 300 MW in first year.

2019
Awarded pipeline ~2.2 GW created.

- Equity fund raise of USD 150 Mn from Investors and Promoter’s family office.

2021
Equity fund raise from GPSC – PTT Thailand.

2023
Secured over USD 1 Bn investment from Brookfield.

2026
Targeted installed Renewable Energy capacity of 11 GW by 2026.

2030
Targeted installed Renewable Energy capacity of 30 GW by 2030.

AVAADA GROUP – A SAND TO MOLECULE CONGLOMERATE

	Equipment Manufacturing (Upstream)	Renewable Energy Generation (Midstream)	Fuel and Feedstock (Downstream)
Current	**Solar Wafers, Cells & Modules** **5 GW under execution** *(to de-risk from supply chain disruptions and build reliable development model)*	**RE Capacity** *Operational + Under Execution* *11 GW* **PTT Group - Strategic Partner**	**Green Ammonia** **0.5 MTPA under execution** *(to tap growth opportunities in sunrise industry)*
	Equipment Supply Agreement for RE Project >>>	***Power Supply Agreement for Green NH_3 facility >>>***	***Sales agreement with end user of Green NH_3***
Medium term	**Integrated Polysilicon to Solar Modules - 10 GW by 2030** **JV for Electrolyser - 1 GW by 2025**	**Scale up to 30 GW * by 2030** *Supported by strong demand from Downstream business of Green H_2 and Green NH_3*	**Target 4 MTPA by 2030** ✓ *Fertilizer* ✓ *Hard to abate industry (eg: steel, Co-firing in power generation)* ✓ *Mobility*

* Solar equivalent capacity

GREEN HYDROGEN - PROJECT RISKS – DEVELOPERS VIEW – CONSTRUCTION PHASE

FINANCING RISKS

- Equity / Debt (Commercial / Concessional) / Working Capital / Interest Rates

TECHNOLOGY RISK

- Technology Selection for Electrolyzer / RE Block

EXECUTION RISK

- Land / EPC Contract / Approval

POLICY / REGULATORY RISK

- Regulation related to Power Banking / Export / Domestic Off-take

MARKET RISK

- Offtake Risk / Quantum / Price / Domestic Off-take

GREEN HYDROGEN - PROJECT RISKS – DEVELOPERS VIEW – OPERATIONAL PHASE

OPERATING RISK

- RE Power Source / Power Banking / Water / Plant O&M / Generation Risk / Storage

TECHNOLOGY RISK

- Obsolescence Risk / Impact on Pricing / Storage

POLICY / REGULATORY RISK

- Domestic Mandates / Global Subsidy Regime / Export Regulation (SEZ / EOU)

FINANCIAL RISKS

- Working Capital / Interest Rate Cycle / Forex Risk / Insurance Risk / Counter Party Risk

MARKET RISK

- Offtake Risk / Quantum / Price / Domestic Off-take / Demand

GREEN HYDROGEN - PROJECT RISKS – GLOBAL MACROS

- GEOPOLITICAL RISKS
- GLOBAL STANDARDS / DEFINITIONS
- SUPPLY CHAIN RISKS
- MARKET DEVELOPMENT RISK

GREEN HYDROGEN –SOUTH ASIA – POSITIVES FOR COLLABORATION


GEOGRAPHICAL POSITION


PORT INFRASTRUCTURE


LAND / WATER


RENEWABLE ENERGY CAPACITY


GRID INFRASTRUCTURE – REGIONAL CONNECTIVITY


STABLE GOVERNMENT / POLICY SUPPORT

AVAADA

THANK YOU!