

Public / متاح

Water Electrolysis System (WES)

INVESTMENT OPPORTUNITY

Energy Sector

INVEST
SAUDI 



Clean Energy

Water Electrolysis System (WES)

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High Potential

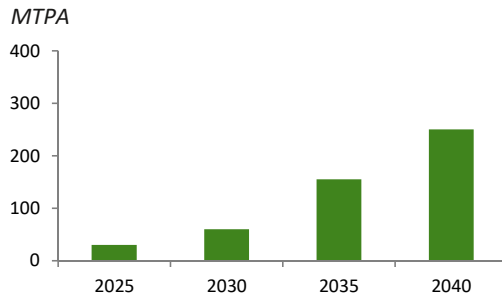
Moderate Potential

Low Potential

OPPORTUNITY DESCRIPTION: To set up a manufacturing facility to produce Water Electrolysis System with a capacity of 3GW per annum to serve the local and regional demand

DEMAND

Global Demand on H



INVESTMENT HIGHLIGHTS

- Expected Investment size of USD 210 M
- Plant capacity: 3 GW*
- Expected IRR: 15%
- Payback period: 5-6 Years
- Job Creation: 797
- GDP Impact %: 0.24% by 2036
- Location (Region): TBD

INVESTMENT OVERVIEW

VALUE PROPOSITION

- The demand of green hydrogen will increase locally and globally over the next 20 years
- KSA Strategic location between key importing markets in Europe and East Asia
- Energy production from Solar and Wind requires large land areas and this is not considered to be a challenge for The Kingdom of Saudi Arabia

KEY DEMAND DRIVERS

- Price competitiveness enables green H2 to partially substitute hydrocarbons as a fuel for heat, power and transportation
- Decarbonization and net zero neutrality targets set by US, EU and Asian markets.
- KSA target to achieve 75% localization of all energy sectors components by 2030.

GLOBAL TRENDS

- Policies that encourage the adoption of H2 mobility
- Legislations, Standards and specifications were published in key markets.
- Dedicated funds and enablement packages dedicated in US, EU and Asia.

MARKET OVERVIEW

RAW MATERIALS

- Bipolar plates
- Porous Transport Layers
- Catalysts
- Membrane
- Stack

Note: 30-40% of the materials can be sourced locally

*Assuming a demand between 0.4 - 0.45 Mt per annum



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SUPPLY

SCALABILITY AND LOCALIZATION

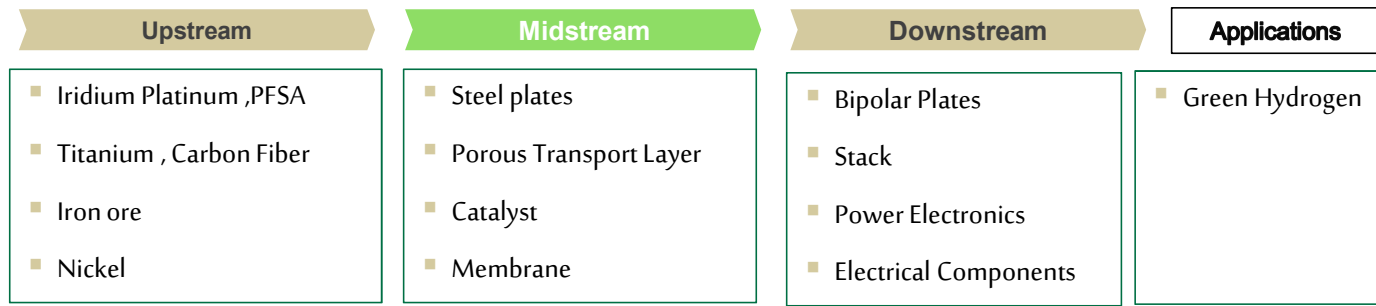
Grade: Low Medium High

- 4MTPA minimum to be produced by 2030 in KSA, and as the Kingdom is aiming to become a major exporter of Hydrogen, increasing the demand on Water Electrolysis System (WES) which allow economies of scale.

IMPORT DEPENDENCY

- 100% of water electrolysis systems are imported

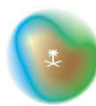
VALUE CHAIN



KEY STAKEHOLDERS



وزارة الطاقة
MINISTRY OF ENERGY



وزارة الاستثمار
Ministry of Investment

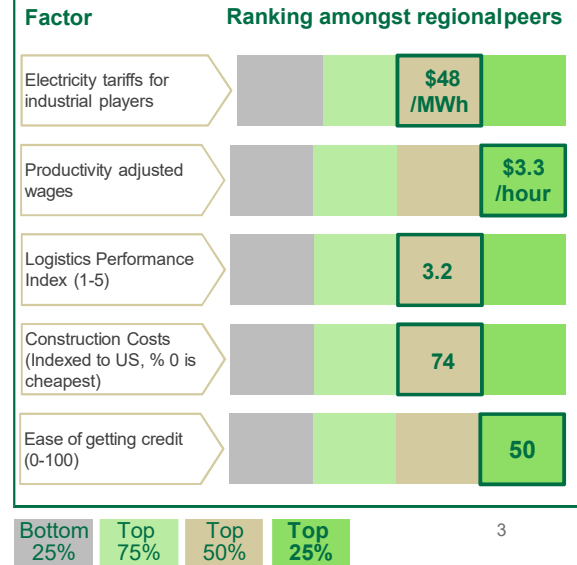
ENABLING FACTORS

ENABLERS & INCENTIVES

Considering the publicly available incentives

- SIDF financing up to 75%
- HRDF for training (SAR 3,000/Employee)
- HRDF Salary support (3,000/month)
- custom duty exemptions on raw material
- Additional 170 M SAR (PLI or CAPEX grant)

COST OF DOING BUSINESS IN KSA



DEFINITIONS

#	SCORECARD SECTION	DEFINITIONS
1	Market size	Size of market in value/volume in KSA and/or Region (MENA/GCC) covering future projections based on available estimates from published /government sources
2	Business drivers	A select number of factors that will influence future demand for the related product/service
3	Investment highlights	An overview of key financial metrics summarizing the investment opportunity along with the expected return based on the suggested investment size
4	Value proposition	Summary of key differentiators that position KSA as a strategic choice over other regional/global peers
5	Market readiness	An overview of KSA market structure, market maturity and level of participation by local and global players
6	Global trends	Latest business developments within the sector/product category
7	Scalability and localization	Ease of scaling the business across the value chain or into new adjacent products or geographies that would maximize the opportunity's investment returns and the ability and potential to locally manufacture the product and its components
8	Import dependency	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
9	Value chain analysis	The process or activities that would potentially need to be carried out to deliver the underlying product or service
10	Key stakeholders	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
11	Enablers	Factors that enable investment in the underlying opportunity
12	Cost of doing business in KSA	Key factors that position KSA as a competitive destination for investment in the region. Productivity adjusted wages do not include cost of \$1.23/hour towards annual recurring charges including work permit, resident identity (iqama) and health insurance



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