

# PERMANENT MAGNET MOTORS FOR ELECTRIC AND HYBRID VEHICLES

## INVESTMENT OPPORTUNITY SCORECARD INDUSTRIAL & MANUFACTURING

DECEMBER 2020

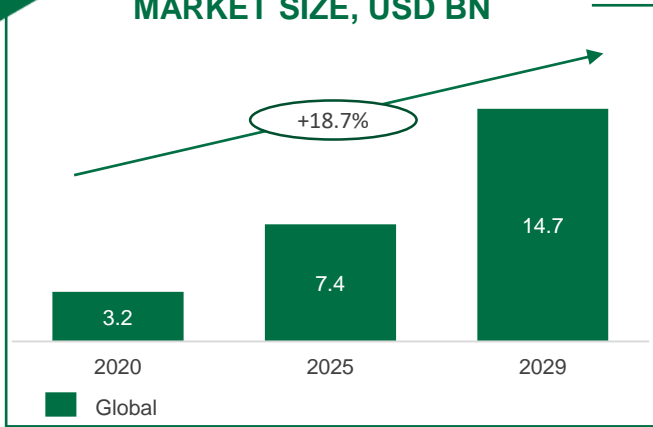


# PERMANENT MAGNET MOTORS FOR ELECTRIC AND HYBRID VEHICLES

**OPPORTUNITY'S DESCRIPTION:** Setting up a manufacturing and assembly plant for of Permanent Magnet Motors (PMM) for Electric (EV) and Hybrid Vehicles in Kingdom of Saudi Arabia (KSA)

## DEMAND

### MARKET SIZE, USD BN



### INVESTMENT HIGHLIGHTS

- Expected investment size: USD 25.5 - 28.6 Mn
- Proposed plant capacity: ~135,000 units
- Expected project IRR: 11.4% - 14.7%
- Expected payback period: 8.03- 9.04 years

## INVESTMENT OVERVIEW

### VALUE PROPOSITION

- KSA is considered one of the largest automotive markets in the Middle East region
- KSA has favourable trade agreements. It is a member of GAFTA and therefore goods produced in KSA and exchanged between member states of GAFTA are exempted from all customs duties
- Opportunity for first mover advantage due to non-existent local PPM for electric and hybrid vehicles
- Automotive has been identified as one of the core sectors to support the Vision 2030 initiative of development of a sustainable manufacturing-based economy, for diversifying away from the oil sector
- KSA is looking to enhance EV deployment to increase energy efficiency in its transportation sector
- KSA has signed a memorandum of understanding ("MoU") with the UK to reduce carbon emissions and develop technologies including smart grids and EVs

### KEY DEMAND DRIVERS

- Car penetration ratio is expected to grow from 181 cars per 1000 people in 2019 to 206 per 1000 people in 2024
- Increase in daily commute distances due to expanding cities, allowing driving permits for women and lack of viable public transportation options will continue to favor usage of personal car as the preferred mode of transport
- The Saudi Arabian standards organization (SASO) has plans to issue regulation for the use of the electric vehicle. Also, the government has established various policies and infrastructure to boost the growth of the electric vehicle market in the coming years such as providing incentives to the consumers, installing charging stations in several parts of the country, among others

## MARKET OVERVIEW

### MARKET READINESS

- No existing manufacturers for PMM in the Kingdom of Saudi Arabia

### GLOBAL TRENDS

- The global electric vehicle market was valued at USD162 Bn in 2019, and is projected to reach USD 802 Bn by 2027, at CAGR of 22.6%
- Electric vehicles offer substantial operating cost savings over comparable, conventional, gasoline-fueled vehicles. Owners of electric vehicles can expect to benefit from less expensive fuel and fewer maintenance obligations
- Increasing vehicle range, better availability of charging infrastructure and proactive participation by automotive OEMs would drive the global electric vehicle market
- The availability of incentives to purchase electric vehicles, along with their continuously falling costs, has made an investment in an EV a smart energy and financial decision



# INDUSTRIAL & MANUFACTURING PERMANENT MAGNET MOTORS FOR ELECTRIC AND HYBRID VEHICLES

## SUPPLY

### SCALABILITY AND LOCALIZATION

Grade: Low Medium High

- Easy availability of raw materials and key automotive grades in Saudi Arabia
- Capabilities exist in KSA for some of the key manufacturing processes for other industries. These can be suitably adapted for the automotive parts sector
- KSA has strong support in the electric vehicle industry and offers incentives such as benefits, subsidies, and installation of charging stations

### IMPORT DEPENDENCY

- 100% of PMM are currently imported into KSA

Country	% of Saudi imports of electric motors in 2019
Germany	14.1%
China	13.2%
Italy	8.2%
Others	64.4%

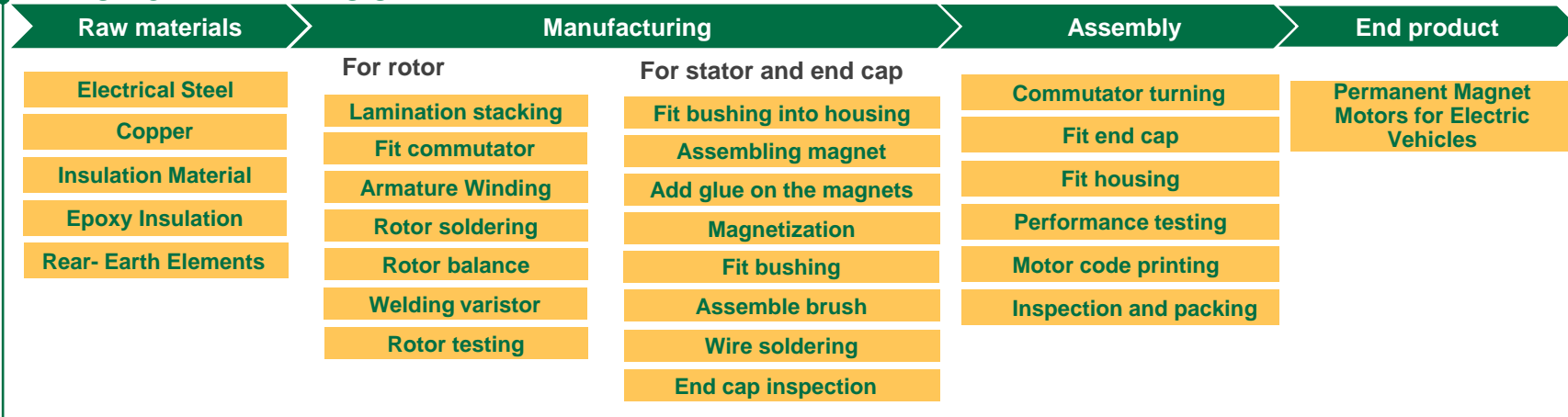
Source: UN COMTRADE

## ENABLING FACTORS

### ENABLERS

- 100% foreign direct ownership allowed
- Low-cost industrial lands (MODON: \$0.27-1.07/m<sup>2</sup>, RCJY: \$1.2/ m<sup>2</sup>, KAEC: \$3.7/ m<sup>2</sup>)
- Low-cost industrial loans up to 50% of capital for up to 15 year provided by SIDF
- Low corporate income tax (20%) on profits only

## VALUE CHAIN ANALYSIS



## KEY STAKEHOLDERS



وزارة الاستثمار  
Ministry of Investment



صندوق التنمية الصناعي السعودي  
Saudi Industrial Development Fund

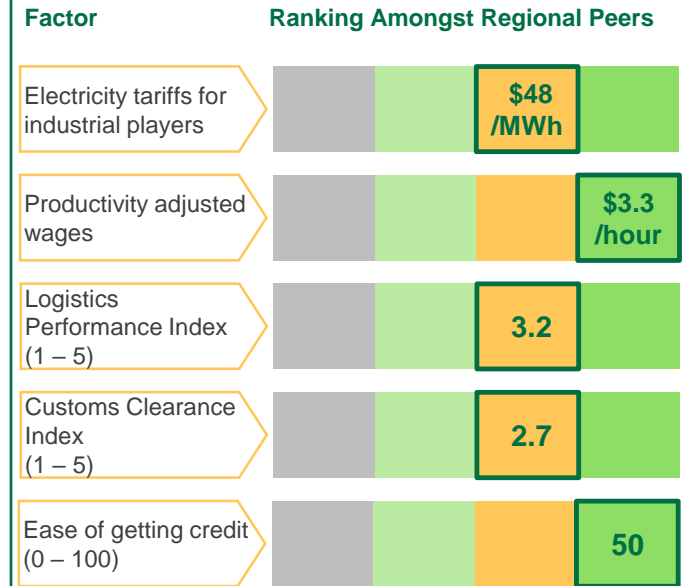


صندوق تنمية الموارد البشرية  
Human Resources Development Fund



الهيئة العامة للغرفة التجارية  
General Chamber of Commerce

## COST OF DOING BUSINESS IN KSA



Bottom 25%    Top 75%    Top 50%    Top 25%

# 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	Demand 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	Competitor analysis	List of the local & international players manufacturing the underlying product in Saudi Arabia and their market share
7	Global trends	Latest business developments within the sector/product category
8	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
9	Import dependency	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
10	Value chain analysis	The process or activities that would potentially need to be carried out to deliver the underlying product or service
11	Key stakeholders	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
12	Enablers	Factors that enable investment in the underlying opportunity
13	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

# DISCLAIMER

- This report must be used only to access information, and the information must not be construed, under any circumstances, explicitly or implicitly, as an offer to sell or a solicitation to buy or sell or trade in any opportunity herein mentioned.
- Ministry of Investment (MISA) has no undertaking to update these materials after the date, with the understanding that such information may become outdated or inaccurate.
- Mentioned information in this report is obtained from reliable sources but its accuracy and reliability are in no way guaranteed. No guarantee of any kind is tacit or explicit when projections of future conditions are attempted. MISA has used public/or confidential data and assumptions and has not independently verified the data and assumptions used in the analyses. Changes in underlying data or operating assumptions will clearly impact the analyses and conclusions.
- The financial evaluations, projected market and financial information, and conclusions contained in these materials are based upon standard methodologies, are not definitive projections, and are not guaranteed by MISA
- The content of this report must not be construed as an implied promise or guarantee for profit or limited loss express or implied by or from MISA or any of its officers, directors, employees and affiliates. All mentioned investments in this report are subject to risk, which should be considered prior to making any investment decisions
- MISA shall have no liability whatsoever to any third party, and hereby any third party waives any rights and claims it may have at any time against MISA with regard to this report, any services or other materials, including the accuracy or completeness thereof.

**CONNECT WITH US FOR MORE DETAILS:**

**[Industrial@misa.gov.sa](mailto:Industrial@misa.gov.sa)**

investsaudi.sa



@investsaudi

