

# Relays- for Switchgear and Process Automation Systems (PAS)

INVESTMENT OPPORTUNITY SCORECARD

**MACHINERY & EQUIPMENT**

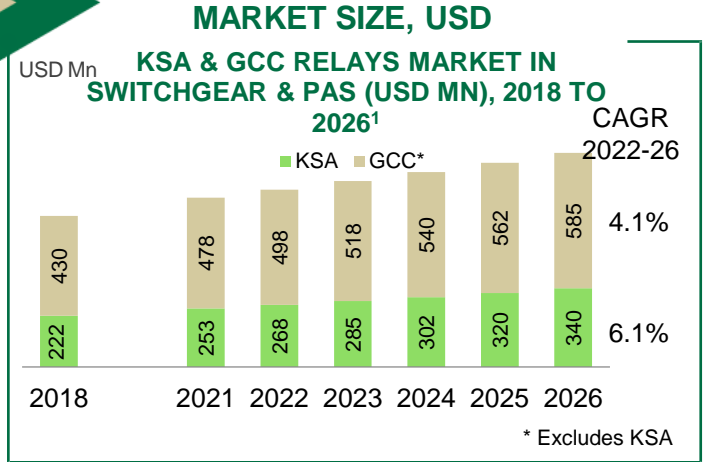


# Machinery & Equipment Relays

**OPPORTUNITY DESCRIPTION:** Setting up a manufacturing and assembly facility for Relays to serve local demand in Saudi Arabia and the broader GCC region

## DEMAND

## INVESTMENT OVERVIEW



### INVESTMENT HIGHLIGHTS

- The investment opportunity is for the establishment of an automated line for manufacturing of “relays” in the KSA – which will target and support local content addition in the switchgear panels and process automation systems industry
- Expected Investment size#: USD 25 to 30 Mn
- Plant capacity#: ~ 55,000 to 60,000 relays/ day
- Job Creation#: 150 to 200

### VALUE PROPOSITION

- **Compliance** – Most companies that are large end-users for switchgear and PAS (power, water, oil and gas, chemicals, refining, mining) need to increase their compliance with localization levels – and are expected to include procurement for equipment and solutions like switchgears and PAS within this commitment. This facility can facilitate such requirements through increased value add
- **Export potential** – Setting up in KSA allows access to trade routes that account for 12% of world trade
- **Infrastructure** - Special economic zones and Industrial townships provide world class infrastructure and competitive access to utilities

- ### KEY DEMAND DRIVERS
- Relays find application in process control hardware and switchgear applications. Their demand will then increase, as a result of expansion and investments across the oil & gas, petrochemicals, power and water sector
  - Plans to increase power generation capacity by an estimated ~35 to 45 GW (2020 – 2030)<sup>2</sup> will also translate into significant investments across the transmission and distribution infrastructure, and in the development of substations thereon - where the demand for relays remains high

- ### RAW MATERIALS
- Molded Insulation Material / Plastics / Polymers
  - Electrolytic Copper/ high purity copper wires
  - Silver Alloys
  - Metallic Arc Splitter Plates
  - Spring Loaded Dashpot
  - Magnetic Slug in a Silicon Fluid
  - Bi-metallic Strips made of Brass and Steel

## MARKET OVERVIEW

- ### GLOBAL TRENDS
- Use of smart relays that can communicate wirelessly and allow remote monitoring & control of the circuit.
  - Growing focus on automation and digitalization of traditional end use sectors pushing the need for effective control and protection
  - Utilization of 5G technology for faster (low latency) data processing and integration of wireless relays

Source: <sup>1</sup>Team Analysis of published strategy documents, reports from SEC & IKTVA publication, independent market reports, UN Comtrade data, General Authority of Statistics data and industry interactions; <sup>2</sup>Team Analysis basis feedback from SEC . #Expert interviews (assumptions), financial statements of peer companies, team analysis

Note: This opportunity is for a component that is manufactured with a range of other components in a facility. No facility is expected to be constructed for manufacturing this component exclusively. Hence, the insights on capacity and investment are indicative - these would vary based on the decision an investor takes on the mix of components to manufacture. Opportunity potential is defined basis current import dependency – High refers to >80%, medium >50 to 80% and low <=50%. \*Job Creation covers direct and indirect job. CAGR – Compound Annual Growth Rate, GW – Gigawatt, PAS – Process Automation Systems, SME – Small & Medium Enterprise, 5G – Fifth Generation, USD – United States Dollar, Mn – Million. Tn – Trillion, SME – Small & Medium Enterprise



# Machinery & Equipment Relays

## SUPPLY

### SCALABILITY AND LOCALIZATION

Grade: Low Medium High

- Establishment of the local relay manufacturing facility will serve localization objectives for assemblers/ integrators of switchgears and process automation system control panels
- The core components of the relay provide an opportunity for local companies and SMEs to participate in the value chain. Some of these that can be considered for localization include iron core, copper coil/ winding, springs and relay casing

### IMPORT DEPENDENCY

- Most of the relays that are used in assembly and testing of switchgear panels and PAS systems are imported.
- Although major electrical companies have local manufacturing presence in Saudi Arabia, they too rely on imports for sourcing relays

## ENABLING FACTORS

### ENABLERS & INCENTIVES

- Customs duties** exemption on imported machinery, equipment, raw materials and spare parts utilized for industrial purpose
- Access to **local content initiatives and programs** at demand centers
- HRDF **covers monthly salaries of up to 30%** for Saudi employees (extra 10% for females) for 2 years
- Expat worker **levy waived off** for industrial manufacturers
- Tax rebates** on exports, raw material imports, and 50% tax credit on Saudi national worker's payroll & training costs for 10 years
- 2-year **grace period** for the repayment of loans
- Unprecedented access to a **diversified value chain** - especially raw materials (steel, aluminum, polymers, and industrial minerals)

### VALUE CHAIN

#### Upstream

- Polyester PBT
- Safety & Auxiliary Contact Material – Silver Cadmium Oxide
- High purity copper

#### Midstream

- Injection Molding
- Component Assembly

#### Downstream

- Testing & inspection
- Labelling
- Packaging

#### Applications\*

- Power
- Oil & gas
- Petrochemicals & Chemicals

### COST OF DOING BUSINESS IN KSA

Factor	Ranking amongst regional peers
Electricity tariffs for industrial players	\$48 /MWh
Productivity adjusted wages	\$3.3 /hour
Logistics Performance Index (1-5)	3.2
Customs clearance index (1-5)	2.7
Ease of getting credit (0– 100)	50

### KEY STAKEHOLDERS



# 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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