

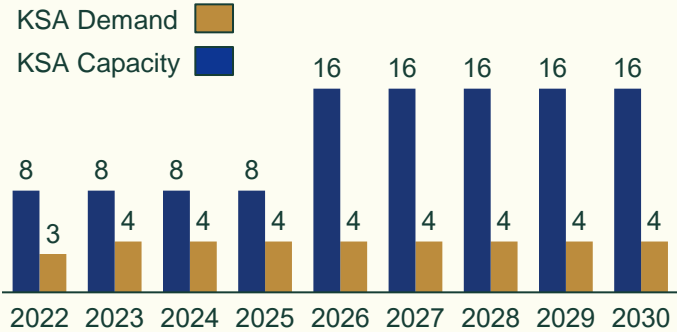
Heat Recovery Steam Generator

Opportunity Description: To set up a heat recovery steam generator facility to serve the future local and regional demand

Heat Recovery Steam Generator (HRSG) – Opportunity Card (1/2)

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KSA Demand in HRSG Units



* This SEC's demand only and missing Aramco's demand

Investment Highlights

- Expected Investment: ~\$48 Mn
- Plant Capacity: ~6 units / year
- Expected Project IRR: ~17%
- Expected Equity IRR: ~21%
- Payback period: 9 years
- Expected GDP Impact till 2030: ~\$280 Mn

Major Assumption

HRSG Price	~\$13 million
Debt	70%
Interest Rate	7%

Raw Materials and Components

- Steel tubes
- Steel plates
- Auxiliaries (Pumps, Valves and Electrical)
- Insulation material

Energy Sector Demand Drivers

- Upcoming / expanding conventional energy giga projects are the major energy sector demand driver for Heat Recovery Steam Generator like Shoaiba II, Rabigh 2 IPP, PP10 and RAWEC

Other Sectors Demand Drivers

- Rampant construction under the Saudi Vision 2030 drives the demand for conventional energy and thus HRSG like NEOM, Momrah Grant Plans and other housing projects

Value Proposition

- The government in Saudi Arabia offers support and incentives to encourage local investment provided by entities in the Saudi Arabian government and the private sector
- Growing demand of HRSG in KSA due to its growing energy sector, particularly in the oil and gas and power generation industries
- Easy access to regional markets

Heat Recovery Steam Generator (HRSG) – Opportunity Card (2/2)

Import Dependency

- In 2020, Saudi Arabia imported ~\$39.2 million in Steam Boilers₁
- Saudi Arabia imports Steam Boilers primarily from: **Japan** (\$10.8 M), **South Korea** (\$5M), **Italy** (\$4.2M), **USA** (\$3,96M)₁

Localization Potential

Baseline	Target	Contribution*
X%	75%	X%

Scalability

- Expand into offering servicing offerings like maintenance, repair and training services for HRSG
- Offer consulting services for optimal HRSG design and integration into existing power plants

Enablers and Incentives

No enablers are taken into consideration in the financial estimation for this opportunity, but the opportunity is subject to off the shelf's incentives like:

- **SIDF financing up to 75% of CAPEX**
- **HRDF covers monthly salaries of up to 3,000 SAR / employee for Saudi employees**
- **Tax credits for R&D for manufacturers**
- **Custom duty exemption for import of capital goods/machinery** required for setup of facility

Major Local and International Manufacturers

- Local Manufacturers: SNT Gulf
- International Manufacturers: Siemens Energy, GE Power and Mitsubishi Heavy Industries

Key Stakeholders



Value Chain

