

12th Arab-Hellenic Economic Forum

Saudi Electricity Company

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CEO - National Grid SA



Introduction

Saudi Electricity Company plays a vital role by supplying the Kingdom with energy according to the highest reliability standards. The company is considered the primary source of electricity in the Kingdom by producing, transmitting, and distributing electricity through an extensive network covering all parts of the country. The company also provides services to all consumer segments, whether individuals, enterprises, or government sectors, contributing to Saudi Arabia's development and renaissance.

Vision

We serve our customers and country by delivering world-class power services

Mission

We power the kingdom that energizes the world

Values



Development

Progressive Duty

We are forward-looking,
public and leading



Excellence

Active Excellence

We are focused,
detailed and agile



Interest

Human Focus

We are empathetic,
caring and supportive

Introduction

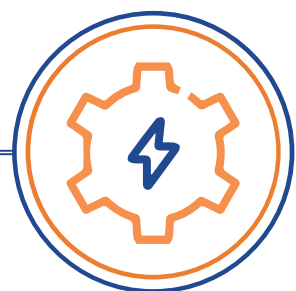
Strategic goals



Strategic Programs



Our Assets



Total generation capacity

55 (GW)



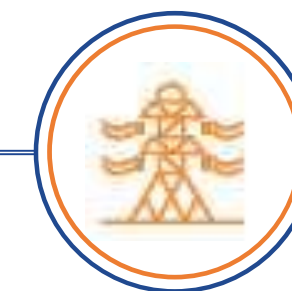
Number of power generating plants \ Total power generating units

**71 generating plants \
476 generating units**



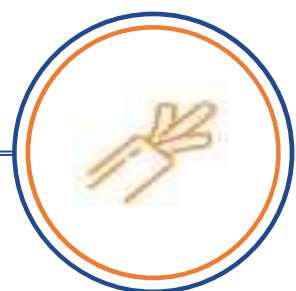
KSA MAX PEAK (GW)

71 (GW)



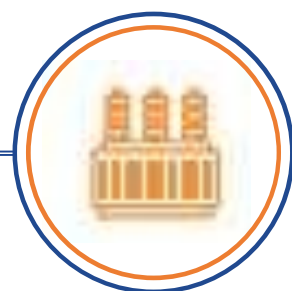
Lengths of transmission network lines

**94,922
km-circular**



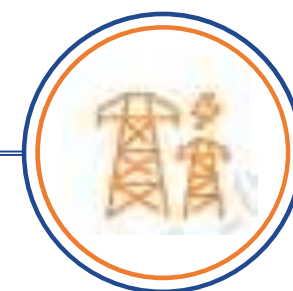
Total of fiber optic network lengths

87,911 Km



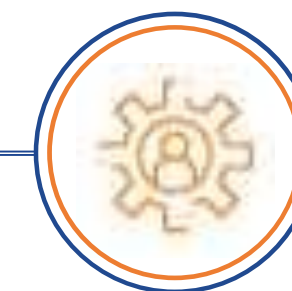
Number of transmission substations

**1,231
Substations**



Distribution network lengths

**812,954 km-
circular**



Number of employees

**Employee
30,677**

SEC: The largest electrical utility in the Middle East & North Africa (MENA)

Company Growth and Revenue :

Amount	Item
Value of fixed assets of Saudi Electricity Company	105.28 Billion US Dollar 394.8 Billion SAR
Value of fixed assets - Generation	28.95 Billion US Dollar 108.6 Billion SAR
Value of fixed assets - Transmission	43.28 Billion US Dollar 162.3 Billion SAR
Value of fixed assets - Distribution	29.89 Billion US Dollar 112.1 Billion SAR
Saudi Electricity Company's revenue growth rate	4%
Saudi Electricity Company's Profit growth rate	5%

SEC Customers :

Amount	Item
Number of bulk customers for National Grid SA	105
Number of customers	10.9 Million

Investment Plans



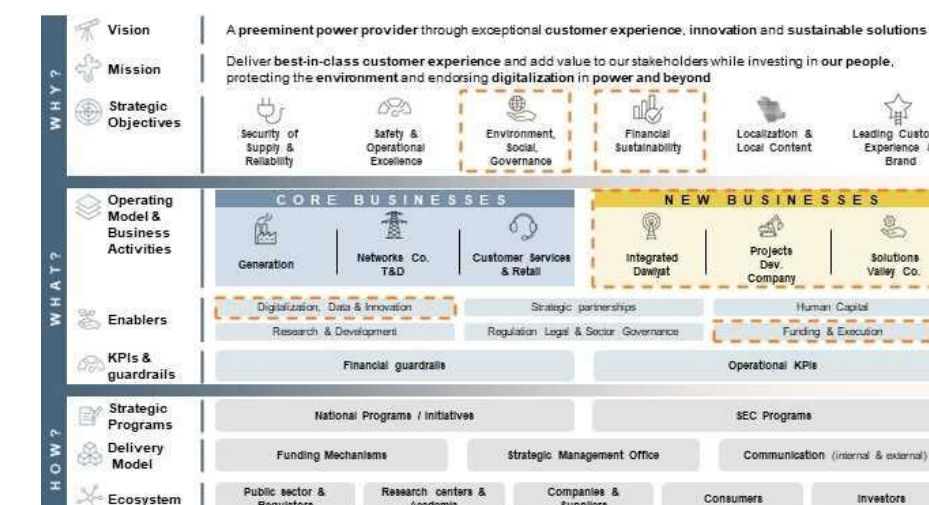
Investment strategy



- Disruptive trends like **decarbonization, electrification** and **decentralization** represents a **\$1 Trillion per annum investment opportunity** presenting challenges to utility players **globally** to keep up with it.










- 96** strategic objectives to drive **KSA's global ambitions**.
- SEC strategy contributes ~50% of **Vision 2030 objectives**.



- Clear ambition to grow non-regulated businesses** (current portfolio of nascent companies + new ones).
- Clear strategic priorities** for SEC compelling us to think boldly, decisively to be the **'forward-looking growth engine'** for SEC targeting non-regulated returns.

Target investment themes will evolve continually, but key six ones identified as focus of Investment for the next 1-2 years

Investment theme	Description	Existing opportunity/ portfolio company (Examples)	Existing opportunity/ portfolio company (Examples)
 Behind the meter solutions	Leveraging customer access to provide energy generation, storage and management solutions	Solutions Valley	<ul style="list-style-type: none"> Distributed energy resource aggregation as a service Smart emissions reduction solutions
 E-mobility	Products and services covering end-to-end EV non-OEM ecosystem	EV Charging	<ul style="list-style-type: none"> Services or technologies that support the customer lifecycle (awareness, engineering, maintenance, financing/capital, ownership for fleet)
 Customer convergence	Leveraging customer access to provide integrated solutions across converging industries/ sectors	KSA Insights	<ul style="list-style-type: none"> Leveraging captive utility customers for new services beyond electric generation, transmission, and/or distribution Data Disaggregation by using smart meter
 Infrastructure convergence	Entering industries/ sectors where enabling non-energy infrastructure that has a synergy with SEC	Fiber	<ul style="list-style-type: none"> Sustainable Alternative Fuels and Carbon Management Green Heat Solutions for B2B and B2C
 Adjacencies	Establishing presence in emerging energy technology	O&M services SEC Labs EPC Real Estate	<ul style="list-style-type: none"> Distributed generation – micro/modular nuclear; feeder/community-level storage Long duration energy storage Platform to trade energy offsets
 Emerging technologies (energy transition)	Extending internal assets and capabilities to external customers	3D Printing	<ul style="list-style-type: none"> Disaggregation of loads for predictive/preventative maintenance Solutions to help forecast grid impacts to extreme weather events
 Infrastructure Energy-related Projects	Bid in infrastructure projects that are related to the core business	Taiba & Qassem	<ul style="list-style-type: none"> Rabigh expansion PP15 PP Jubail

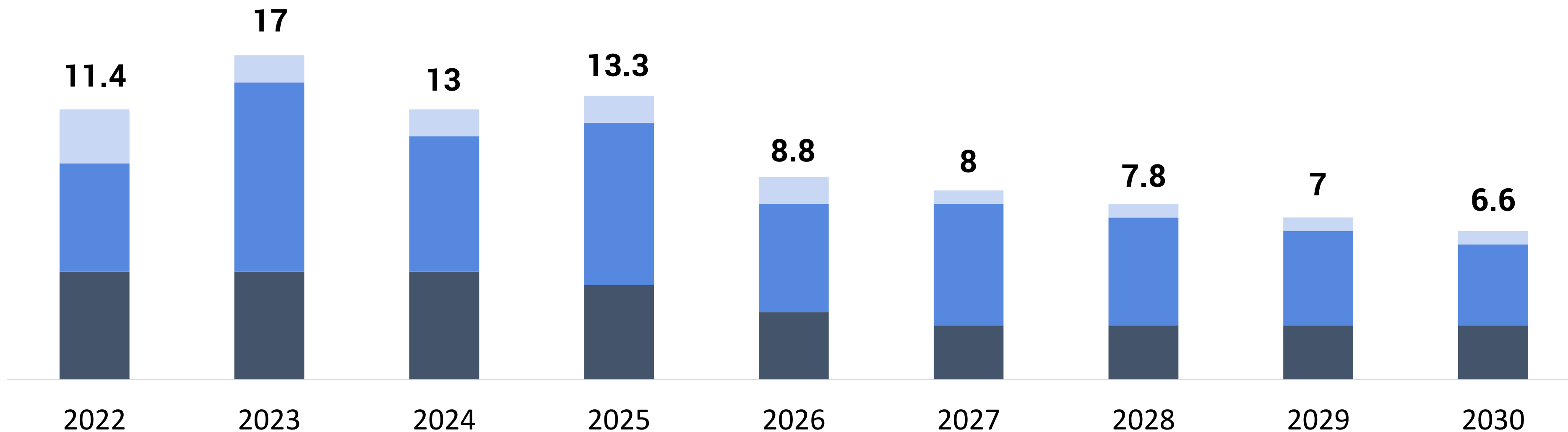
Key subsidiaries

	Outside Investment Sector scope	Investment Sector Focus
100% Subsidiary	 Saudi Energy Production Company  نقل الكهرباء National Grid SA	 ضوئيات dawiyat  ضوئيات المتكاملة INTEGRATED DAWIYAT للاتصالات وتقنية المعلومات For Telecom & Information Technology  PDC شركة كهرباء السعودية لتطوير المشاريع SE Projects Development Company  Solutions Valley
50% to 100%		 SGGS  المرجان ALMOURJAN  Hajr شركة هجر لإنتاج الكهرباء HAJR ELECTRICITY PRODUCTION COMPANY  شركة ضرماء للكهرباء dhuruma electricity company  EVIC
< 50%		 هيئة الربط الكهربائي لدول مجلس التعاون لدول الخليج العربية GCC Interconnection Authority  GCC Lab المفتمر الخليجي  SWEC  SQWEC شركة الشقيق للمياه والكهرباء SHUQAQ WATER AND ELECTRICITY COMPANY  جواب JWAP  SEPCO

SEC investment plans to have ~ 93 B U.S. \$ capital investment from 2022-2030

Approved capital investment plan for from 2022-2030, B U.S. Dollars (\$)

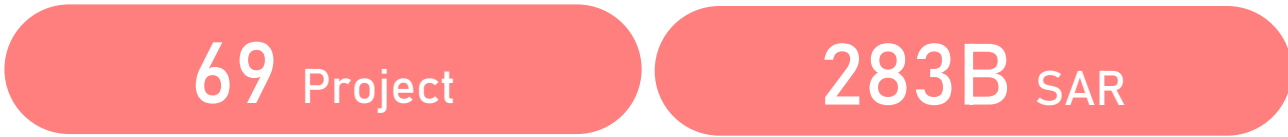
Generation Transmission Distribution



Renewable Energy Integration



PLANNED PROJECTS (2024 – 2032)



Supply Chain Bottle Neck

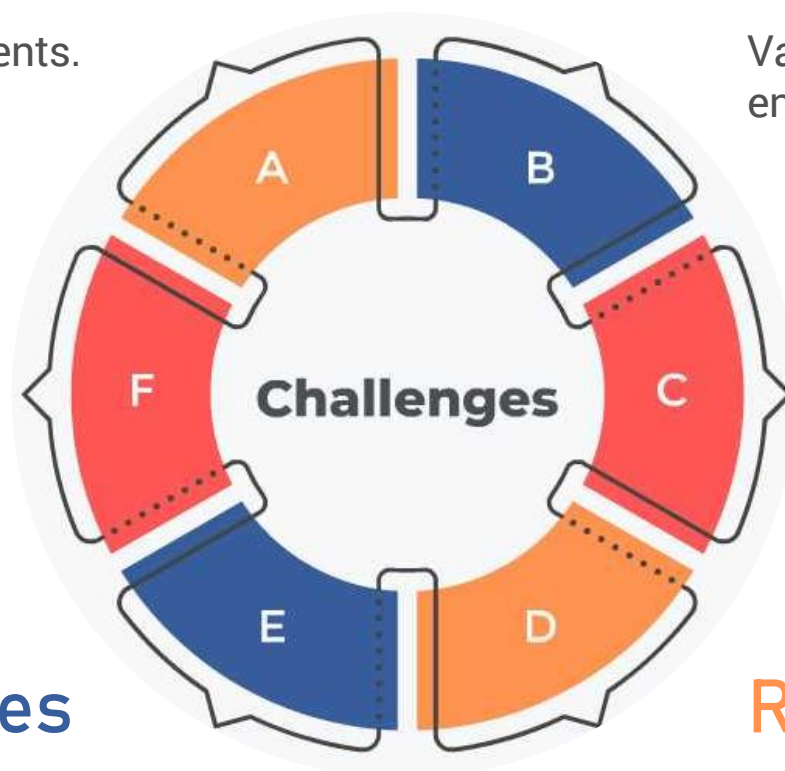
Effective coordination and distinct interface agreements.

Key Technical Complexities

Variable, intermittent and unpredictable nature of renewable energies mandates highest system flexibilities.

Workforce Competency Development

Building core competencies and foster advanced skill-sets.



Project Financing & Cost

Maintain balancing between high investment cost & profitability.

Interconnection with other Countries

Clear understanding of social structures, environmental factors & business operating models of other participating countries.

Regulatory & Policy Consideration

Establish a vision that can drive innovation in the policies through well-crafted combination of policies, rules & regulations, and procedures.

Our Success and Achievements



Our Success and Achievements :

Replacement of mechanical meters with smart meters

Achieved
100% coverage
of smart meters
in the Kingdom.

installed approximately

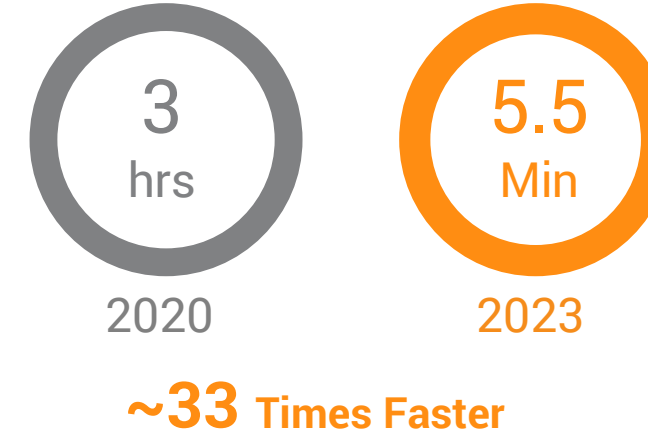
11

million smart meters

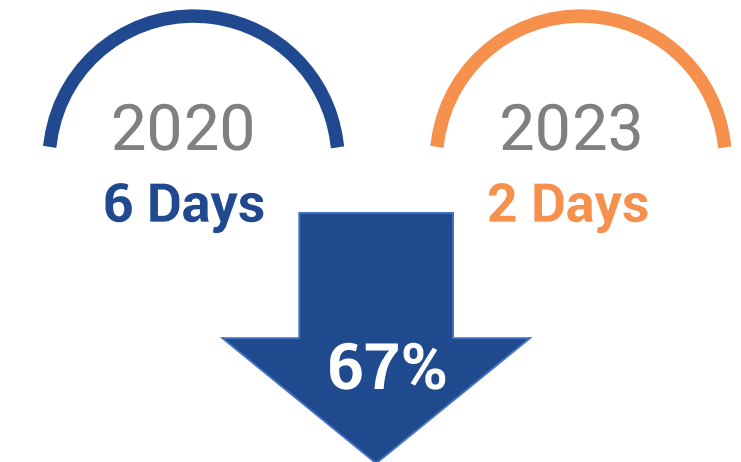
in the past three years , for all
customers in all regions, cities, villages
and residential communities .



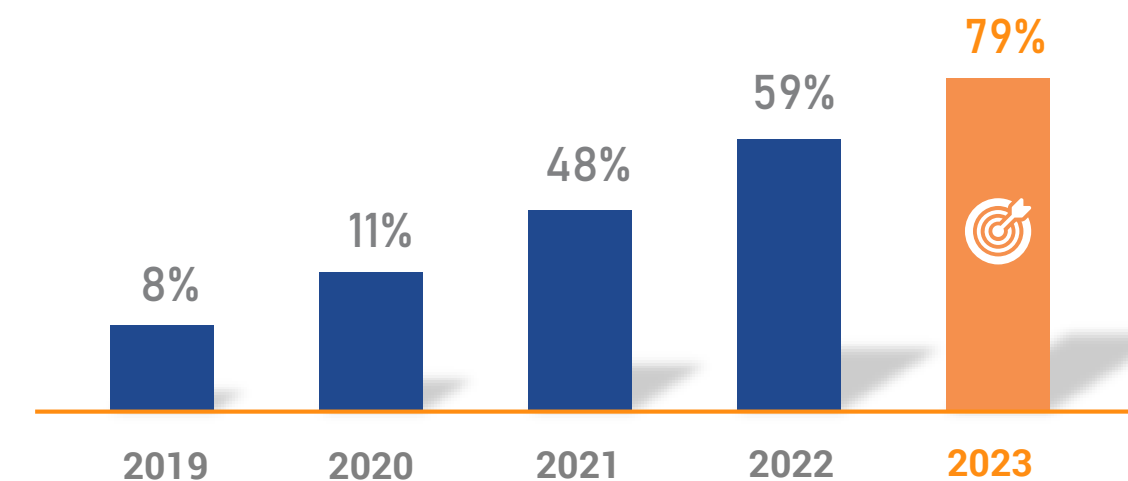
Average Remote Reconnection Duration



Meter Reading to Billing Duration

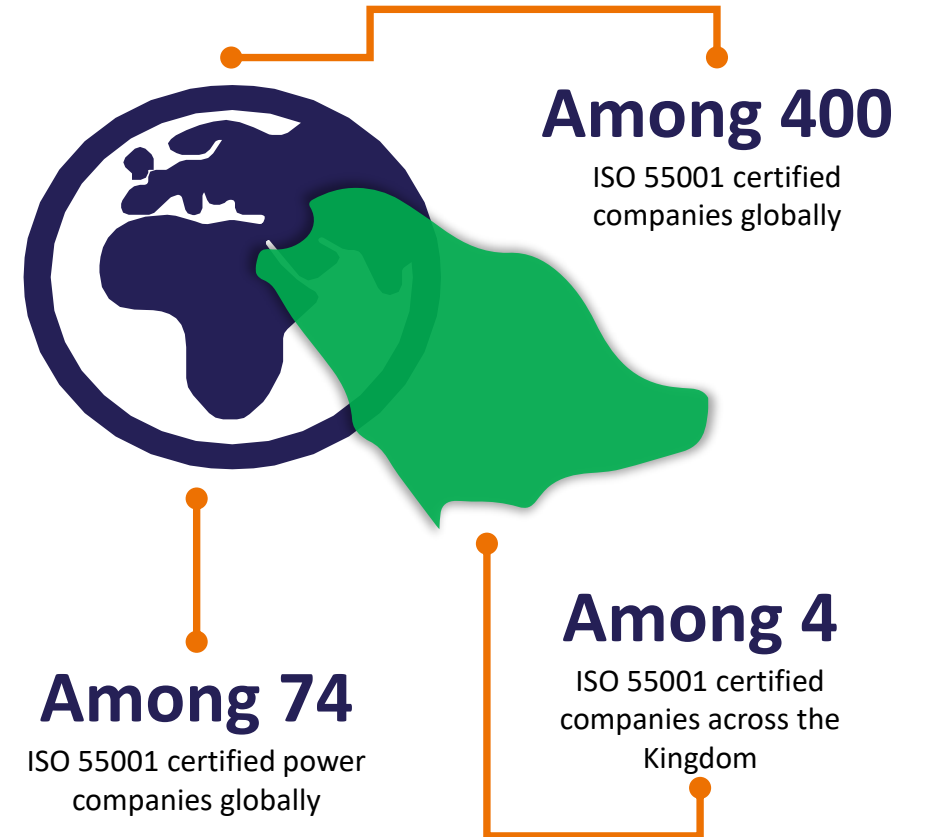


% Of tampering and malfunctions alarms issued by meters



Our Success and Achievements :

National Grid SA Asset Management Journey



PASS 55 Gap Analysis
Initial alignment to best practices

2013

ISO 55001 Gap Analysis
AM improvement program initiated

2017

2019

AMS Department Established
With 5 divisions & 1 group to focus on processes implementation for AM



ISO 55001 Certification
Compliance achieved
March 2022

2025

Reach 60% Asset Management Maturity

Cross-border Electrical International Interconnection KSA



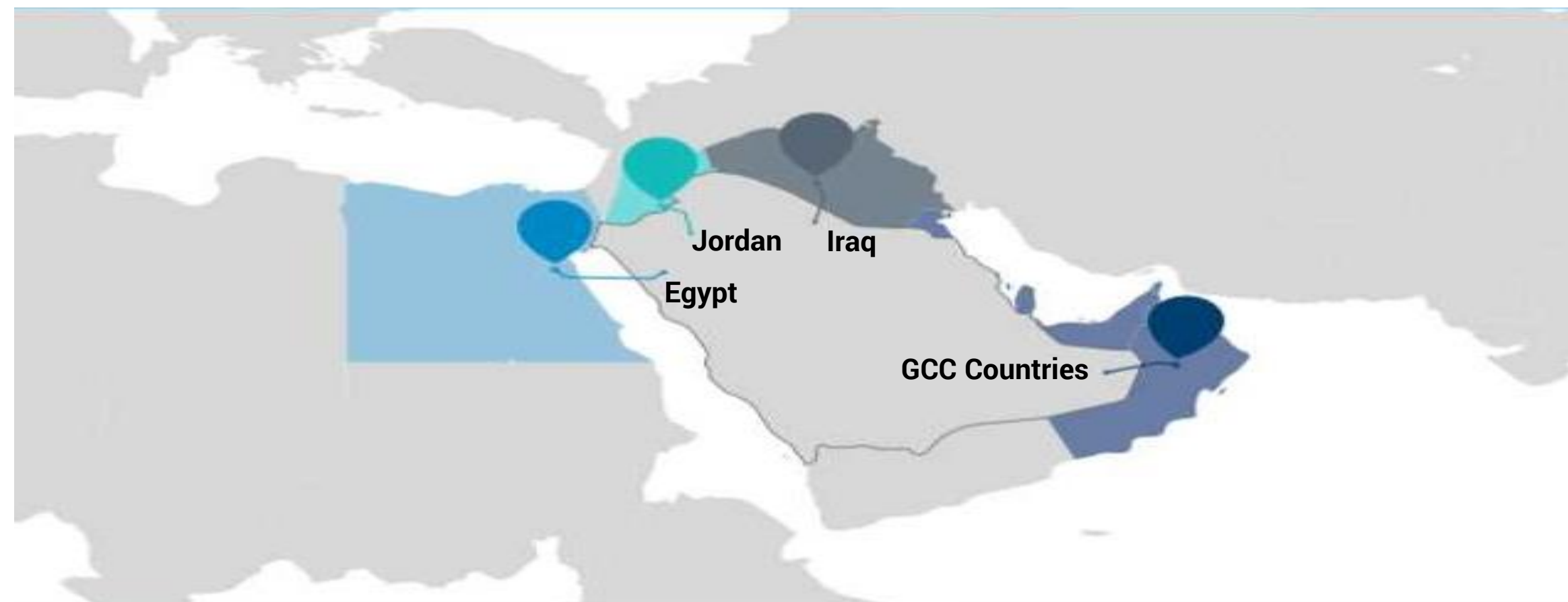
Int'l interconnections Program contributes to achieving SEC's Security of Supply and Reliability objectives

Supporting elements for ambitious projects

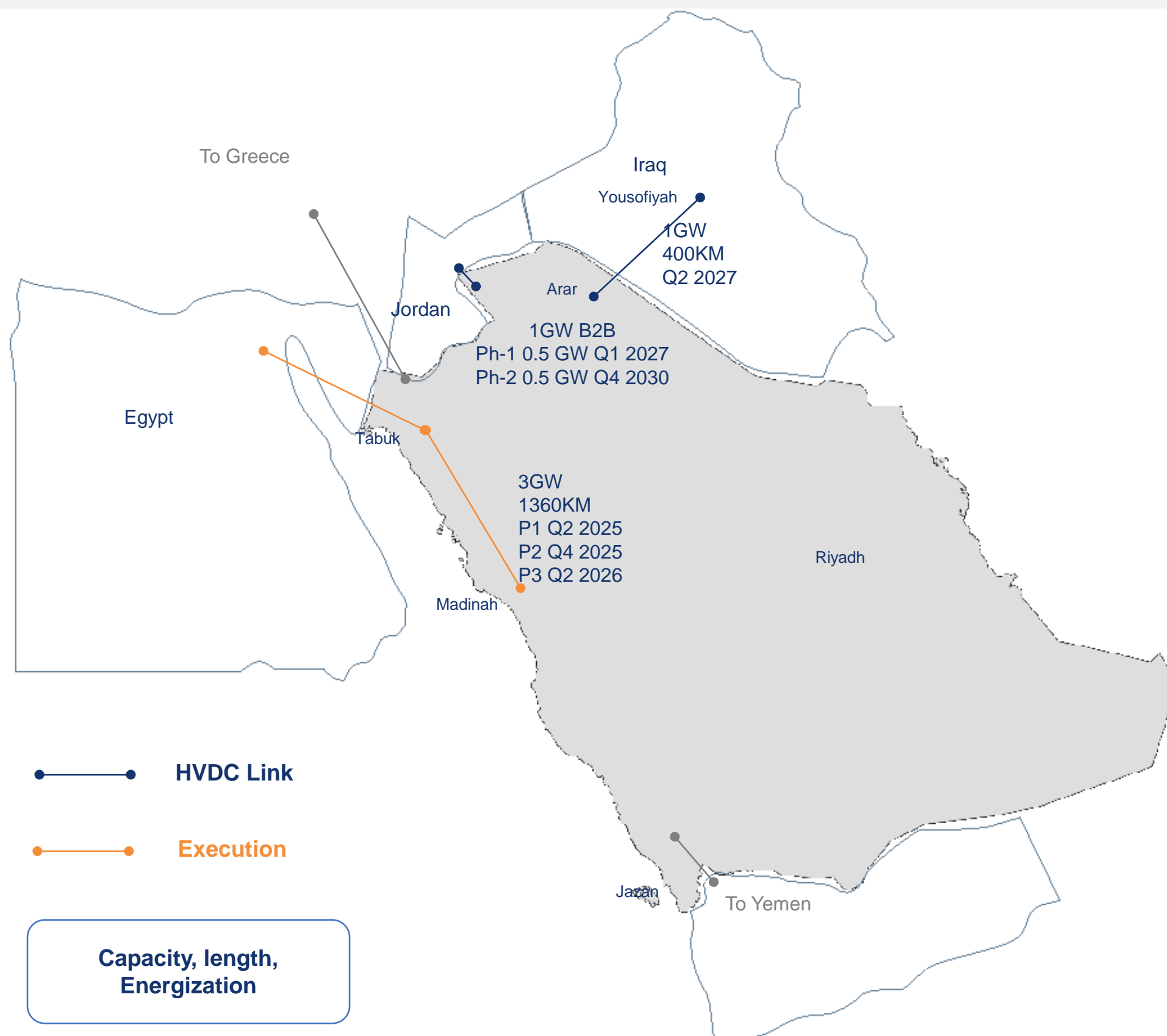
- 1 A Strategic location that enables it to be a regional center for the exchange of electrical energy through electrical interconnection projects.
- 2 Close historical, fraternal relations and deep ties with neighboring countries.
- 3 An abundance and diversity of sources of electric power generation using fossil fuels and renewable energy sources.

Multiple advantages and shared benefits

- 1 Strengthening international relations
- 2 Activating the commercial exchange of electrical energy
- 3 Improving the reliability of the electrical grid
- 4 Reducing the capital investments needed to build the required reserve in interconnected electrical systems



Three Initiatives validated, one in Execution



Three initiatives validated by Program team

and currently ongoing with strong progress against milestones



One initiative in execution phase (Egypt)
Two initiative in engineering phase (Iraq)(Jordan)

International Interconnection – Greece

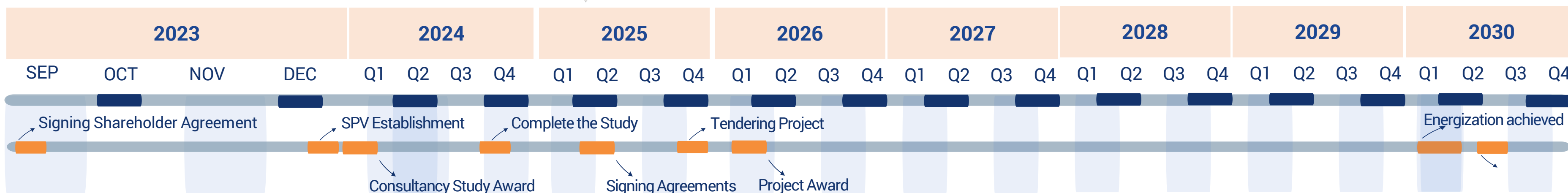
Strategic cross-border interconnection for availing energy exchange between KSA & Europe



Status

- KSA & Greece governments signed Cooperation MoU
 - NG-SA & Greece signed Shareholder Agreement
 - SPV Establishment
 - Techno-economic Feasibility Study
 - Agreements (IA, OA, TA)
 - Tendering / Bidding
 - Awarding
 - Energization
- Completed
 - In-progress
 - Not started

Roadmap



Benefits of International Interconnections

Technical benefits



Improve Reliability & Resilience

Additional reserve in normal and emergency cases, Rapid injection of power during tripping of huge generation



Absorb Renewable Energy Targets



Exploiting Surplus Generation and transmission Capacity

Increase the utilization factor of both power systems

Economic benefits



Economic benefits

Potential economic benefit for different energy exchange scenarios

Other benefits



International Relationship

Improve the international relationship between countries



Reducing Capital Investments

Saving realized in both countries CapEx for ancillary services with high RE penetration



Electricity Market - Power Wheeling to Other Countries

Opportunities for wheeling energy to other countries



Environmental Safety

Reduction of CO₂ emission



Additional Comm. Paths

Integration of Fiber Optic Network in GCC, Middle East Region as well as Global Network

Thank You
