Ministry of Energy and Mineral Resources

The Hashemite Kingdom Of Jordan

Jordan Energy Sector Strategy 2025-2035

Energy is the backbone of the economic and developmental process. We were among the first countries in the region to recognize the importance of implementing programs and policies that ensure a gradual diversification of its sources, which would immunize our country against global price fluctuations and, consequently, solidify the sovereignty and stability of our economic and developmental decisions.

His Majesty King Abdullah II bin Al Hussein

Ministry of Energy and Mineral Resources

Vision

A secure and sustainable energy sector, and the optimal utilization of natural resources in line with international best practices.

Mission

Developing and enhancing appropriate policies and legislation to achieve sustainable energy security and the optimal utilization of natural resources, in accordance with international best practices.

National Goals

1. Stimulating inclusive and sustainable economic growth
2. Creating economic opportunities for Jordanians
3. Improving the daily lives of Jordanians
4. Enhancing Jordan's global competitiveness
5. Applying sustainability principles to the quality of life
6. Applying sustainability principles to economic growth

Strategic Objectives for the Energy Sector
(Sectoral Goals)

1. Diversifying energy sources and types
2. Increasing the contribution of domestic energy sources (renewables, gas, etc.) to the total energy mix
3. Improving energy efficiency across all sectors
4. Reducing energy costs for the national economy
5. Developing Jordan's energy sector ecosystem to become a regional hub for energy production and exchange.

Jordan Energy Sector Strategy (2025 – 2035)

Pathways in JESS 2025 - 2035

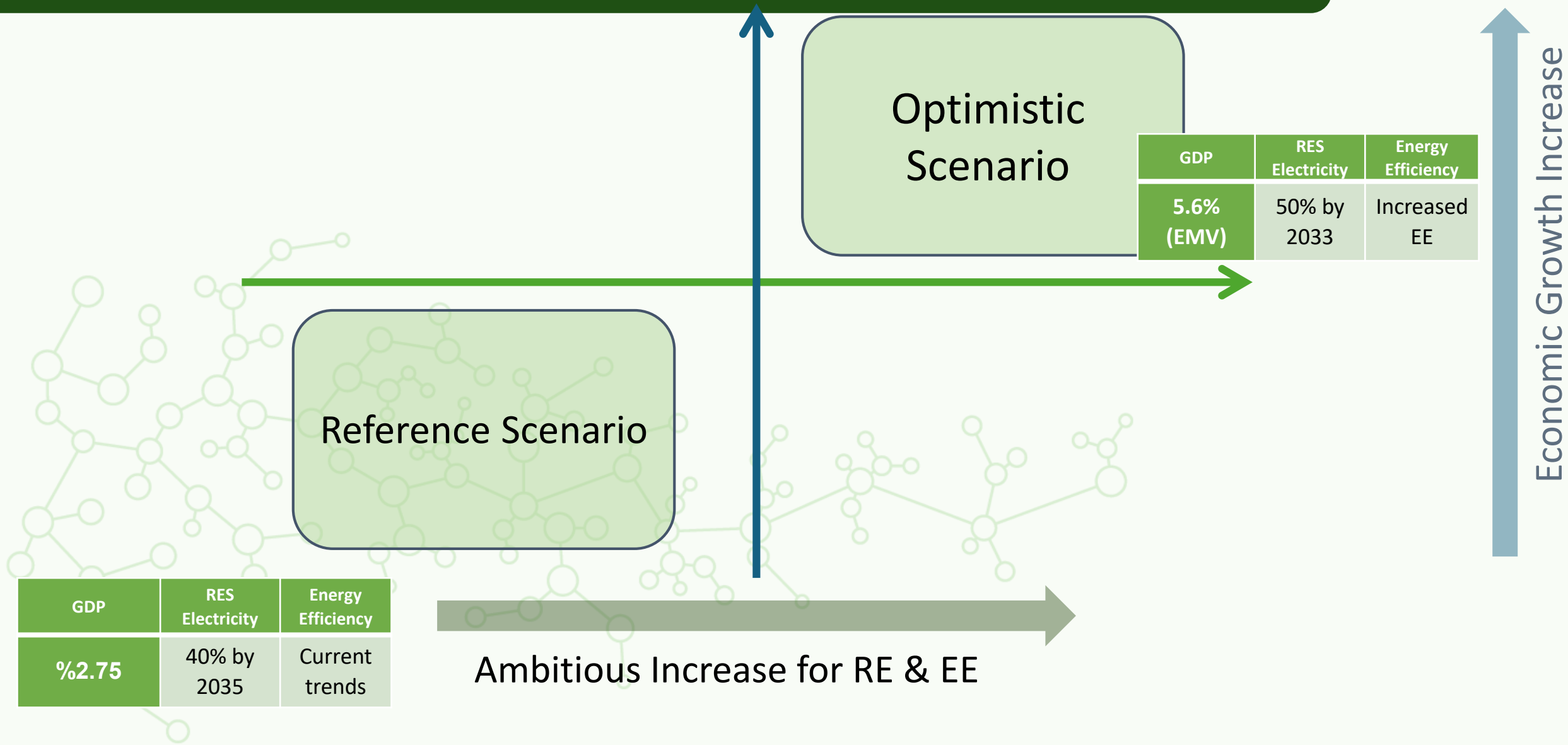
Reference Scenario

- Continuing current policies, expanding renewable energy, enhancing the use of natural gas, and investing in green hydrogen in line with current economic growth, while developing the legislative environment for the energy sector.
- This path serves as a reference scenario (baseline) for adapting to the changes impacting the sector under current conditions.

Optimistic Scenario

- Accelerating the economic transformation process, in line with the vision of economic modernization and its economic growth targets.
- Adopting more ambitious policies and increasing the rates of renewable energy integration, supported by improvements in storage and the electricity grid, expanding the electrification of the transport sector, and implementing energy efficiency measures on a large scale across all sectors. Conducting studies to open up the electricity market, and deploying applications to maximize the utilization of local energy resources.

Scenario Overview

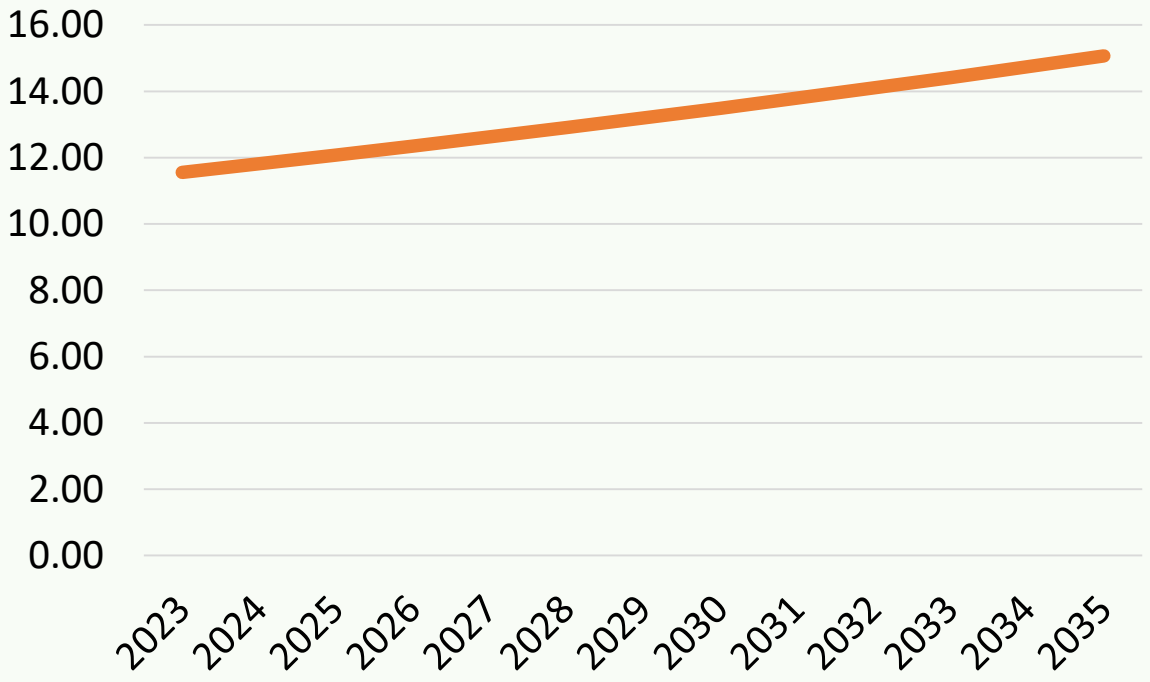


GDP	RES Electricity	Energy Efficiency
5.6% (EMV)	50% by 2033	Increased EE

GDP	RES Electricity	Energy Efficiency
%2.75	40% by 2035	Current trends

Jordan Energy Strategy 2025-2035

Primary Drivers of Energy Demand



Reference Scenario	Optimistic Scenario
%2.75	%5.6
Compatible with current economic growth rates	Compatible with the Economic Modernization Vision Gross Domestic Product (GDP): 58.11 billion Jordanian Dinars by 2033

The Department of Statistics projects an annual population growth rate of 2.239% until 2035

Jordan Energy Strategy 2025-2035

Key Initiatives for Each Scenario

Reference Scenario	Optimistic Scenario
• Increasing power generation capacity based on local natural gas. • Increasing the contribution of renewable energy sources to reach 40% of the electricity mix by 2035. • Increasing the contribution of local sources in the electricity mix to 70%, supported by energy storage systems.	• Accelerating the implementation of solar and wind energy projects. • Increasing storage capacities, such as batteries, and implementing enhancements to the electrical system. • Increasing the contribution share of renewable energy to reach 50% of the electricity mix by 2033 and 55% by 2035.Increasing the contribution of local sources in the electricity mix to 82% by 2035, supported by energy storage systems. • Expanding the establishment of data centers.

Jordan Energy Strategy 2025-2035

Key Initiatives for Each Scenario

Reference Scenario	Optimistic Scenario
Implementing energy efficiency measures within the national plan	Expanding energy efficiency programs
• Expanding the use of electric vehicles. • Introducing vehicles that run on compressed natural gas (CNG), particularly for heavy transport.	• Greater expansion in the adoption of electric vehicles. • Increasing the use of CNG vehicles across all vehicle types.

Jordan Energy Strategy 2025-2035

Shared Initiatives Across Scenarios

Implementing a 200 MW solar power generation project and a 100 MW wind power project.

Installing 100 MW / 400 MWh BESS battery systems by 2028, commissioning the 450 MW / 3,150 MWh pumped-storage hydropower project at the Mujib Dam by 2030, and upgrading the electrical grid to address operational challenges.

Commissioning the Independent Power Producer (IPP) 7 project for the years (2027–2028) and the IPP 8 project for the years (2029–2030) using Combined Cycle Gas Turbine (CCGT) technology to cover load growth, including the loads of the National Conveyance Project (Aqaba-Amman Water Desalination and Conveyance Project), which also includes a 312 MW solar power plant to meet 30% of its energy requirements.

Maintaining Liquefied Natural Gas (LNG) as a strategic supply option and continuing to secure gas imports within existing contracts.
Expanding the use of natural gas across all sectors, with a particular focus on the industrial, residential, and transport sectors.

Achieving a gas production level of 812 million cubic feet per day (MMcfd) at the Risha field by 2035, and constructing a gas pipeline to connect the Risha field to the Arab Gas Pipeline.

Commencing production in 2030 using dedicated renewable energy sources (solar and wind) for hydrogen projects, with a focus on developing export supply chains, given that the majority of production will be for export purposes.

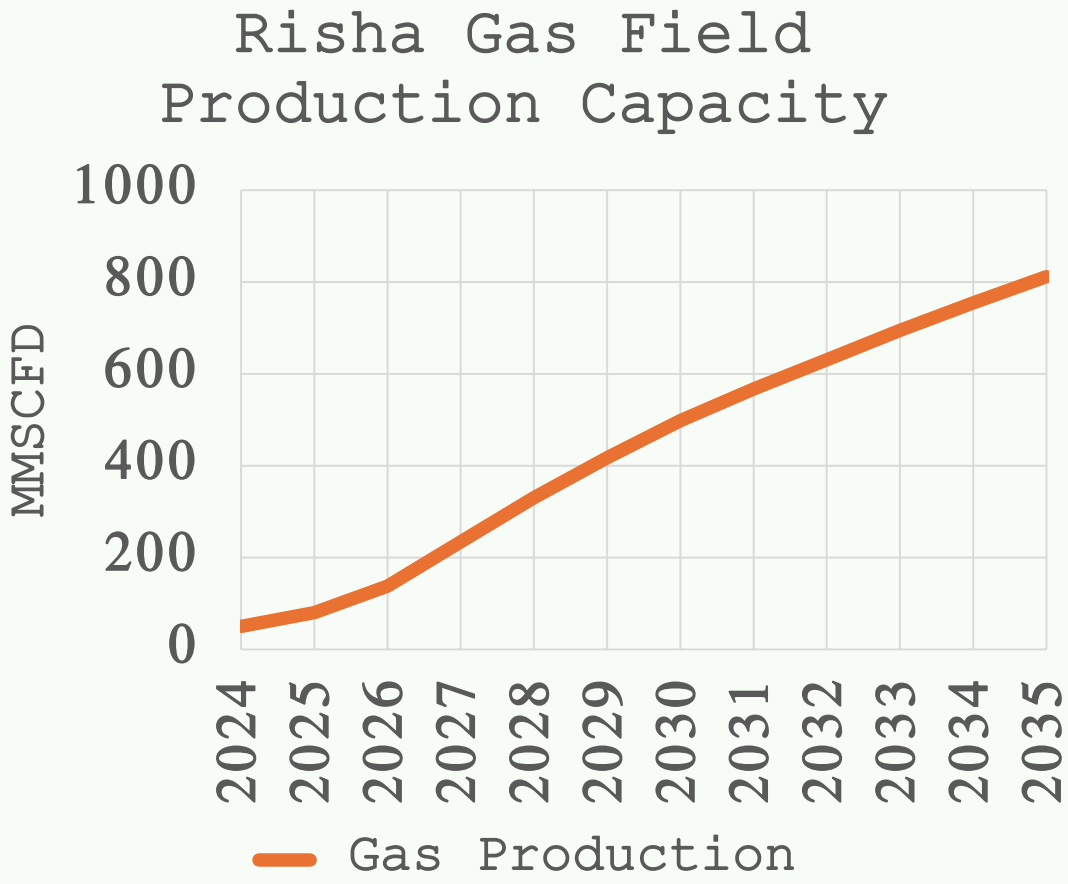
Expanding investment in areas open for oil and gas exploration.

Jordan Energy Strategy 2025-2035

Risha Field: Transforming Jordan's Energy Landscape

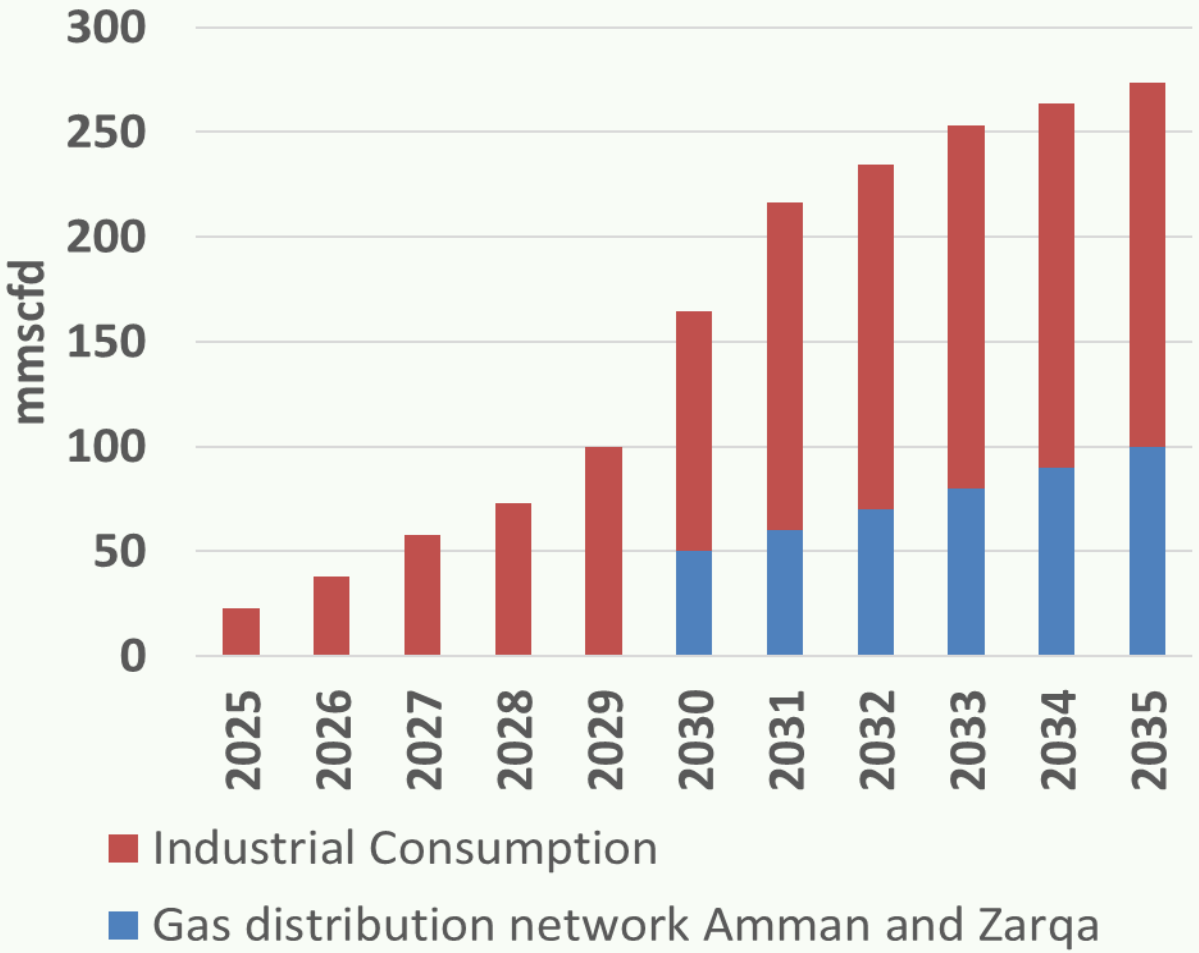
- Reaching domestic gas production levels of 418 million cubic feet per day by 2029, and expanding to 812 million cubic feet per day by 2035.
- The gas pipeline linking the Risha field to the Arab Gas Pipeline will be operational in 2029.

- Setting the price of Risha gas at 90% of the price of piped gas supplied by Chevron, inclusive of transmission costs.



Jordan Energy Strategy 2025-2035

Diversifying Fuel Sources – Domestic Gas



- Readiness of the gas distribution network in the Amman and Zarqa governorates by 2030, enabling the supply of gas to residential, commercial, and service buildings, among other facilities.

- Continuing the conversion of industries to run on natural gas, to reach a demand rate of approximately 173 million cubic feet per day (MMcfd) by 2035.

Source: Data from MEMR Oct. 2025

Jordan Energy Strategy 2025-2035

Measures Taken in the Electrical / Renewable Energy Sector

- Implementing two power generation projects using Combined Cycle technology with a capacity of 700 MW each, with the first coming online in 2027–2028 and the second in 2029–2030.
- Implementing a 200 MW solar power generation project and a 100 MW wind power project.
- Installing 100 MW / 400 MWh BESS battery systems by 2028.
- Commissioning the 450 MW pumped-storage hydropower project with a 7-hour storage duration at the Mujib Dam by 2030.

- Gradually reducing electrical losses on electricity distribution networks to reach 8% by 2035.

- Continuing the implementation of the Time-of-Use (TOU) tariff to cover all sectors by September 2026; as a result, the peak electrical load is projected to decrease by 8.9% and energy demand by 3.4% by 2035.

Jordan Energy Strategy 2025-2035

Green Hydrogen

- Commencing green hydrogen production in 2030, with a continuous output increase to reach half a million tons of green hydrogen by 2035.
- The installed renewable energy capacity for hydrogen production will reach 8–9 GW, depending on the renewable energy mix.

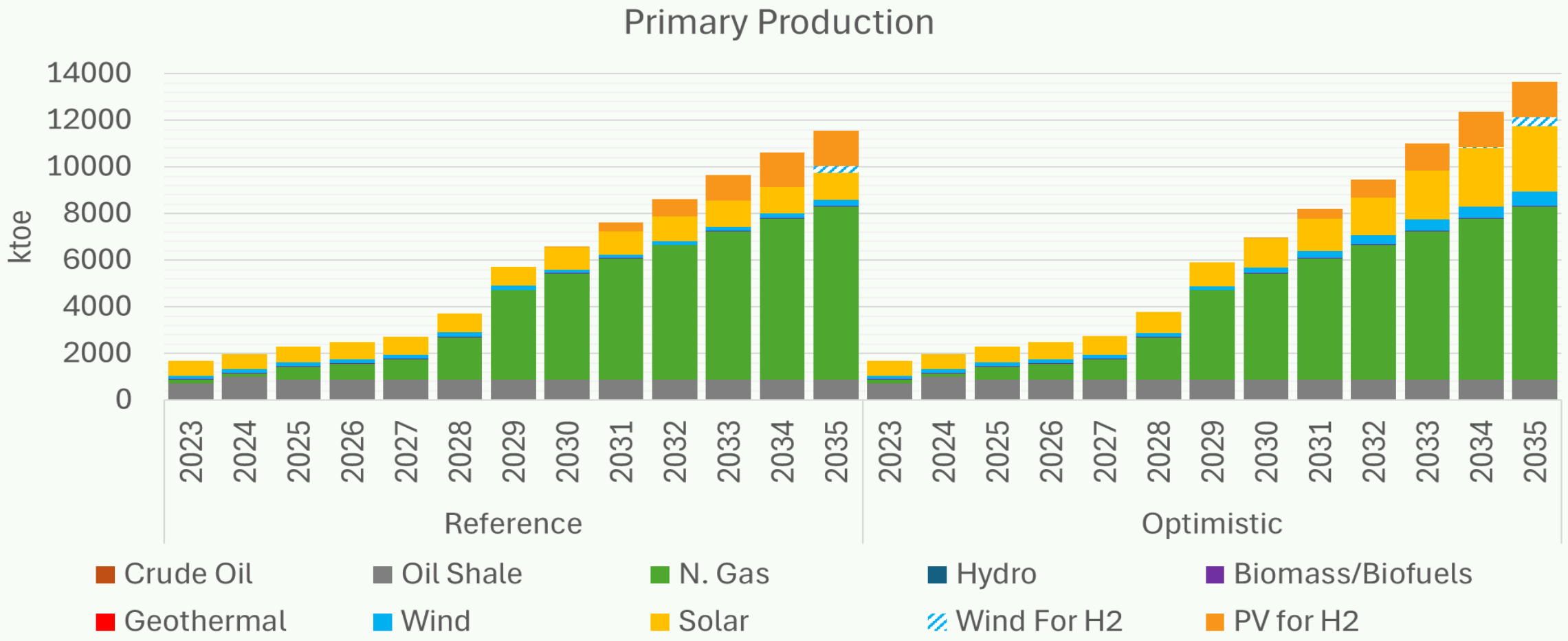
Jordan Energy Strategy 2025-2035

Transport Sector

- Continuous expansion of electric vehicles, to account for 60% of annual new car sales and reach 1.2 million vehicles by 2035 under the optimistic scenario, compared to approximately 0.5 million vehicles in the base scenario.
- Introducing the use of Compressed Natural Gas (CNG) in vehicles (particularly heavy-duty vehicles) under the base scenario, and increasing its utilization across all other types of transport modes under the optimistic scenario.
- Expanding public transport systems and railways as planned in the National Transport Strategy.

Key Insights from the Analysis

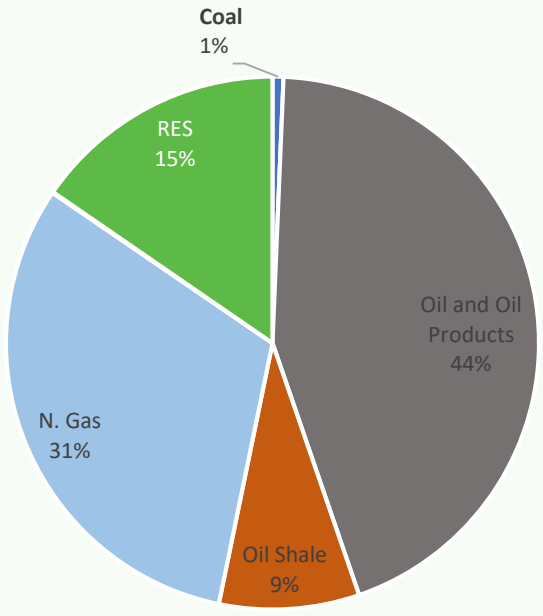
Locally Produced Primary Energy



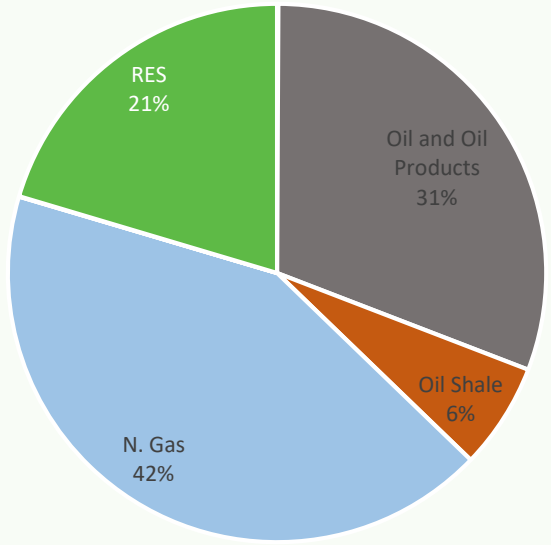
Key Insights from the Analysis

Total Primary Energy Supply (TPES)

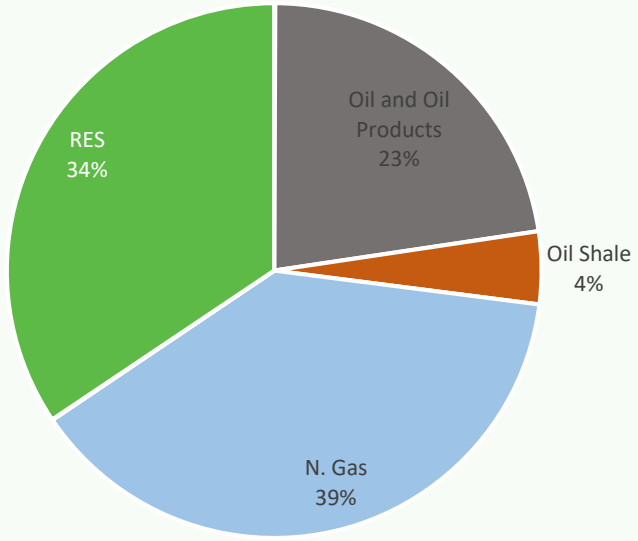
2025



Reference Scenario 2035

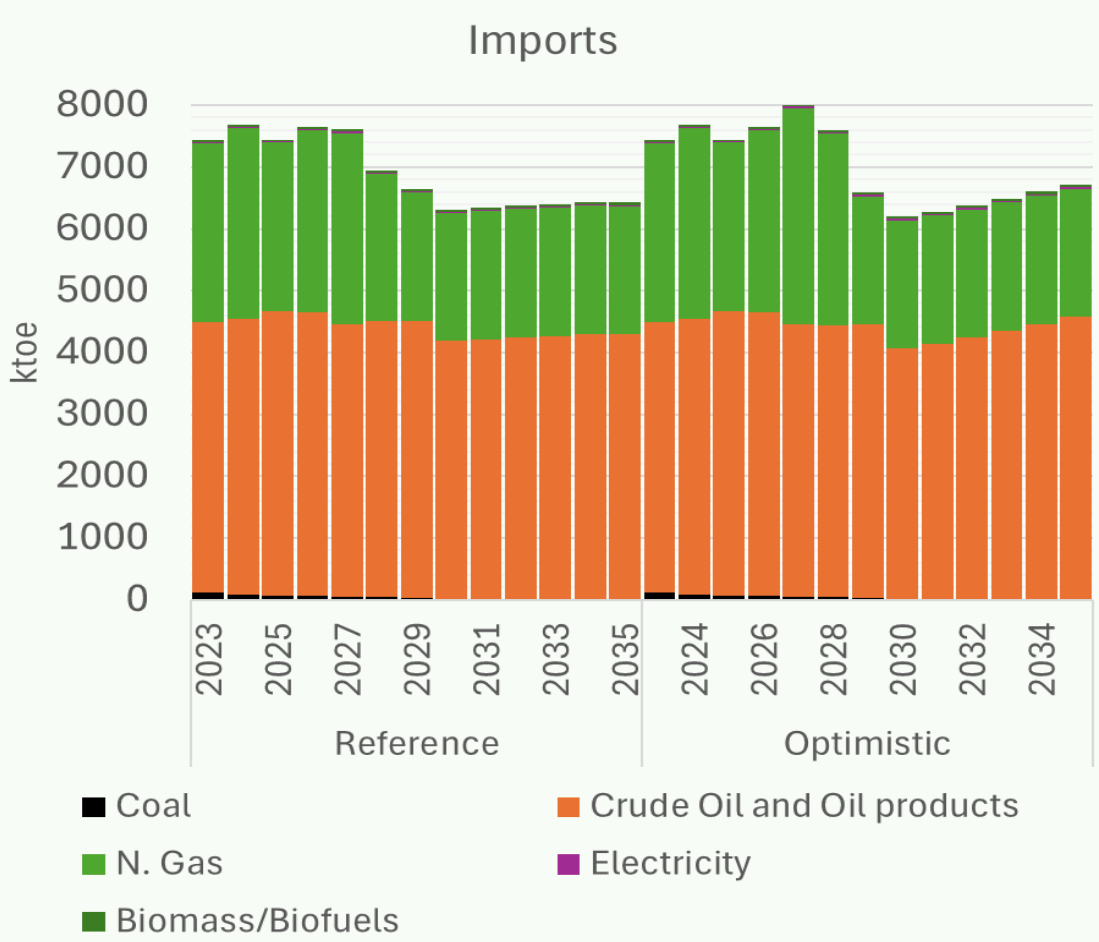


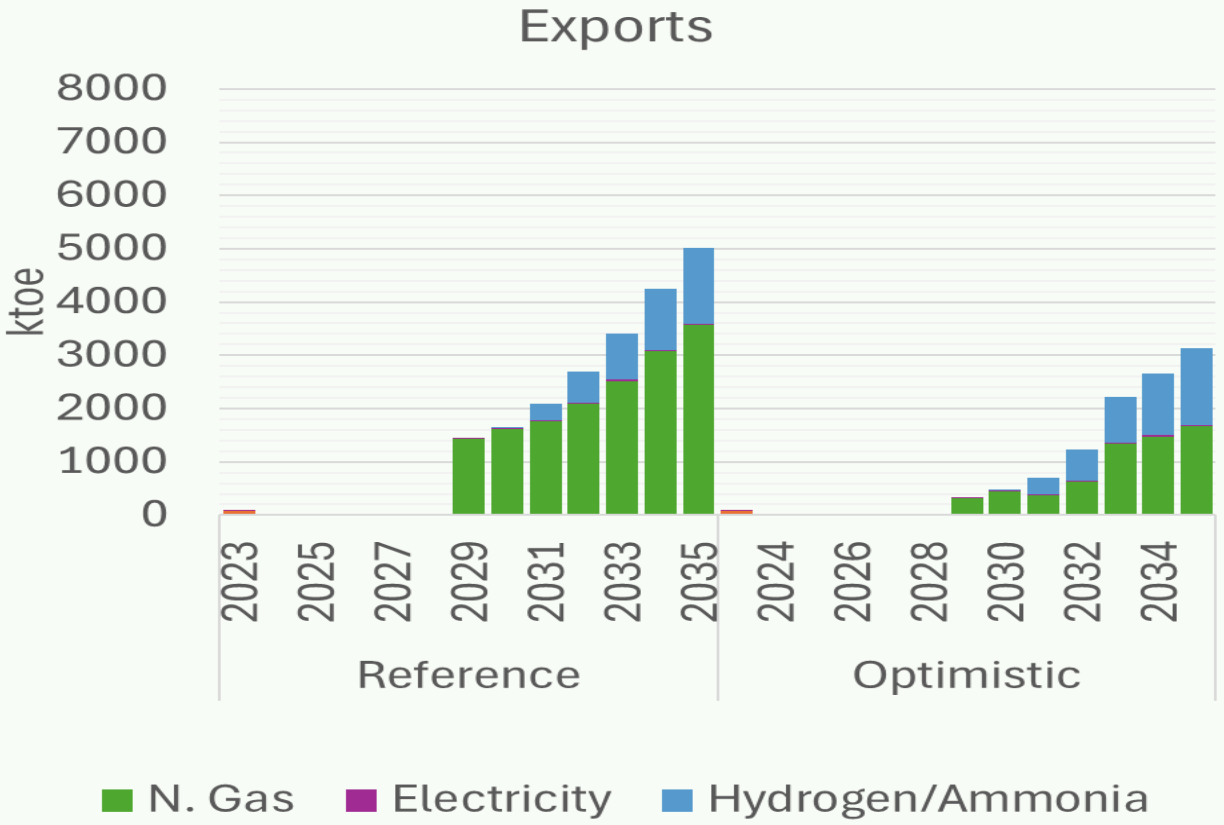
Optimistic Scenario 2035



Key Insights from the Analysis

Imports and Exports

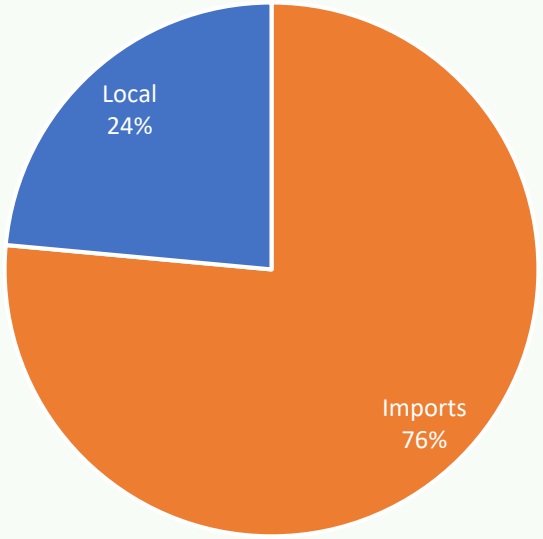




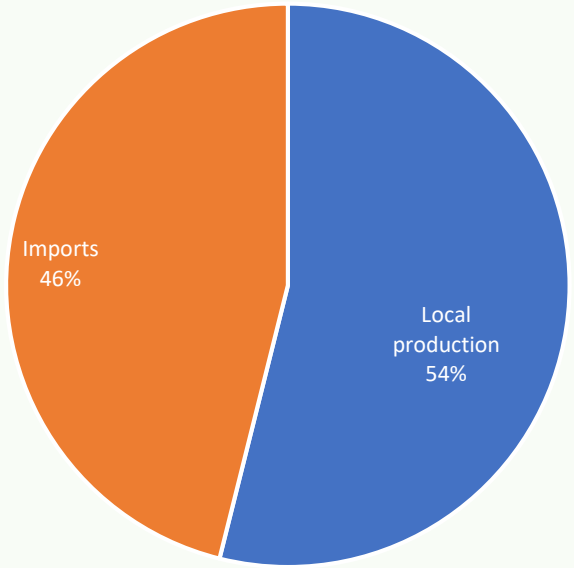
Key Insights from the Analysis

Self-Reliance in Primary Energy Sources

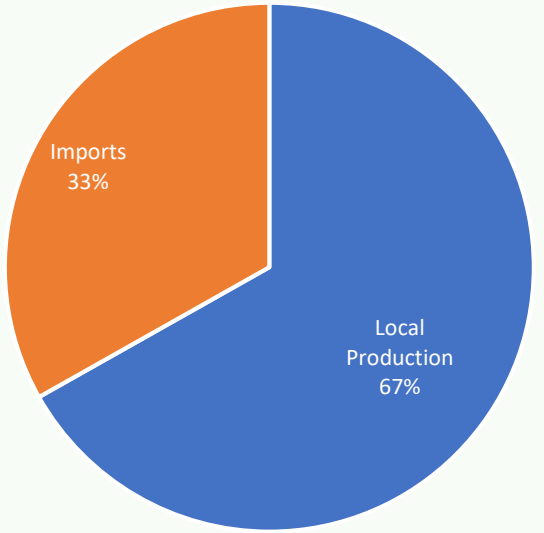
2025



Reference Scenario 2035

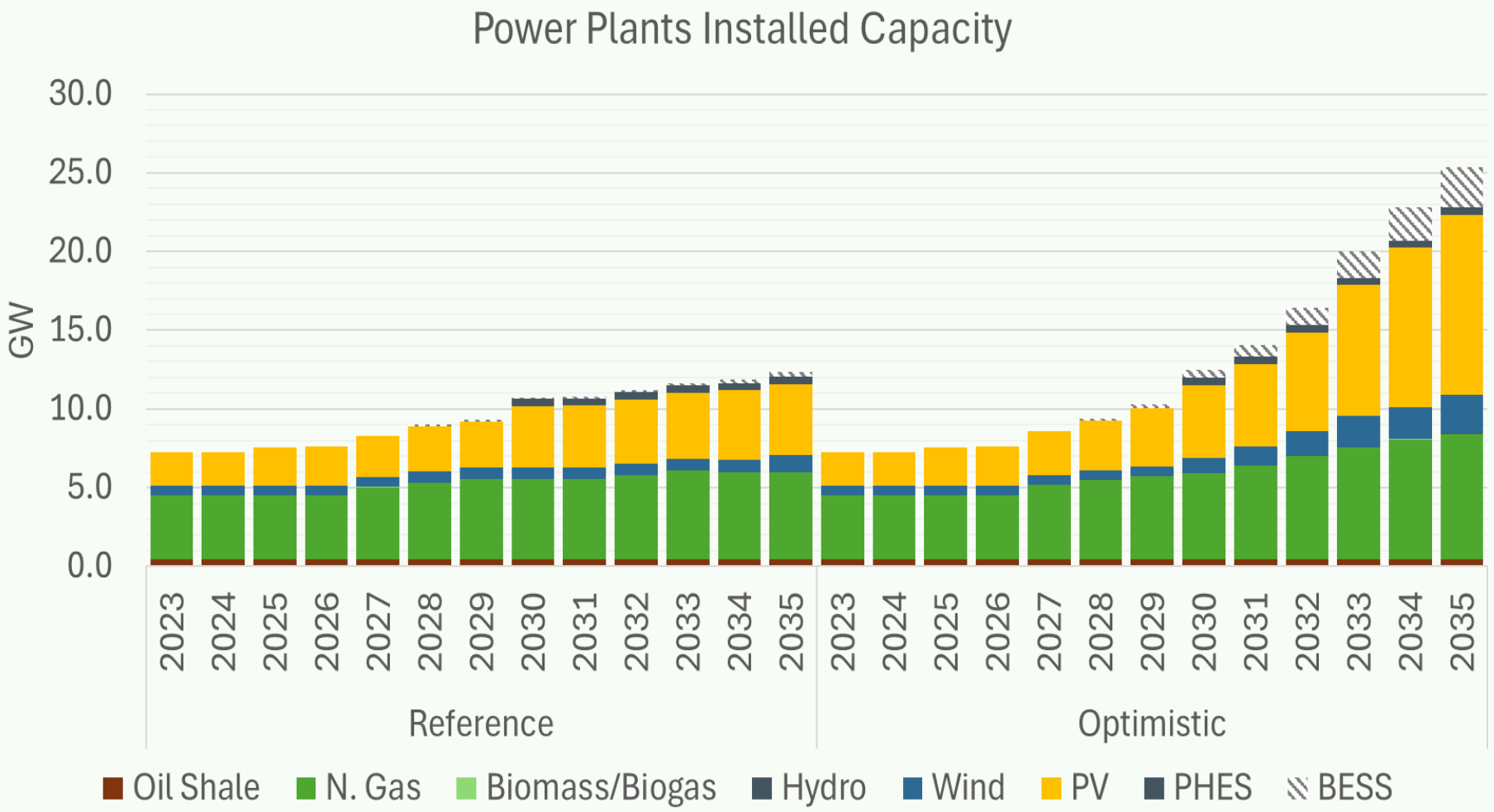


Optimistic Scenario 2035



Key Insights from the Analysis

Power Generation Capacities

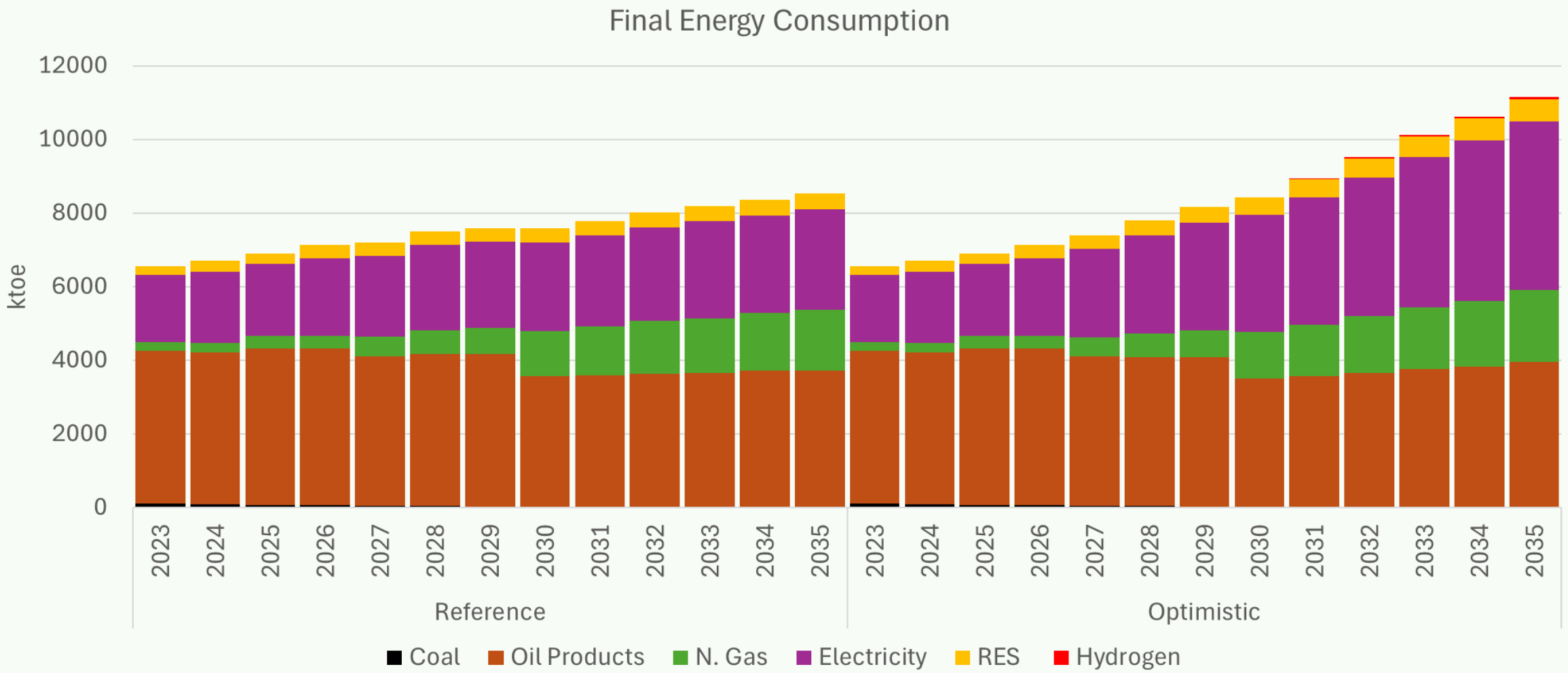


Increasing Renewable Energy Capacity in the Optimistic Scenario

A comprehensive steady-state and dynamic grid study must be conducted.

Key Insights from the Analysis

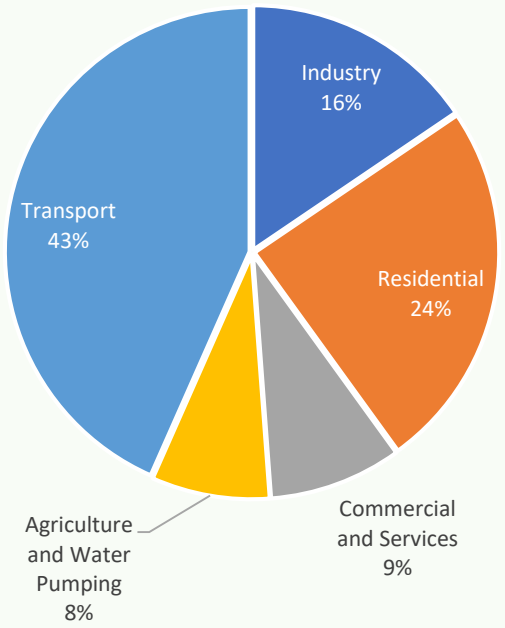
Total Final Energy Consumption by Fuel Type



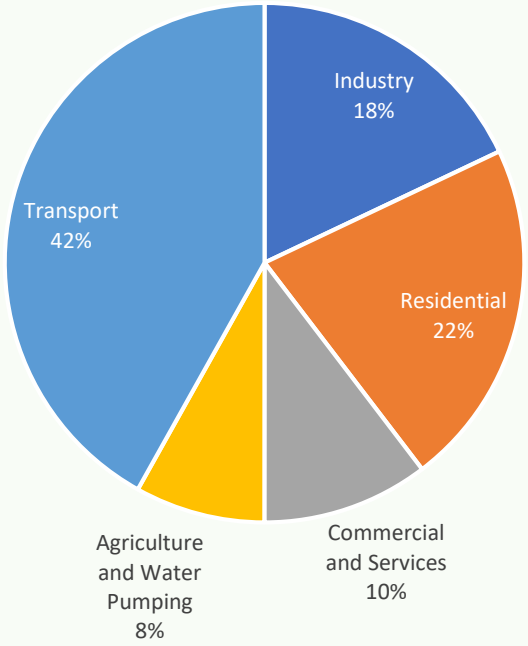
Key Insights from the Analysis

Total Final Energy Consumption by Sector

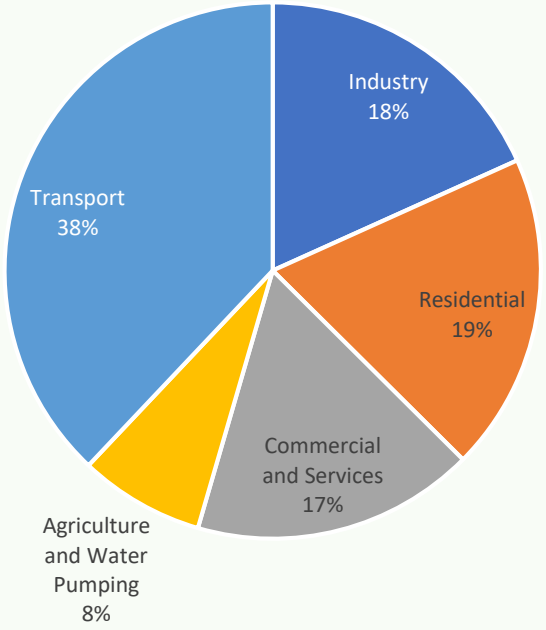
2025



Reference Scenario 2035

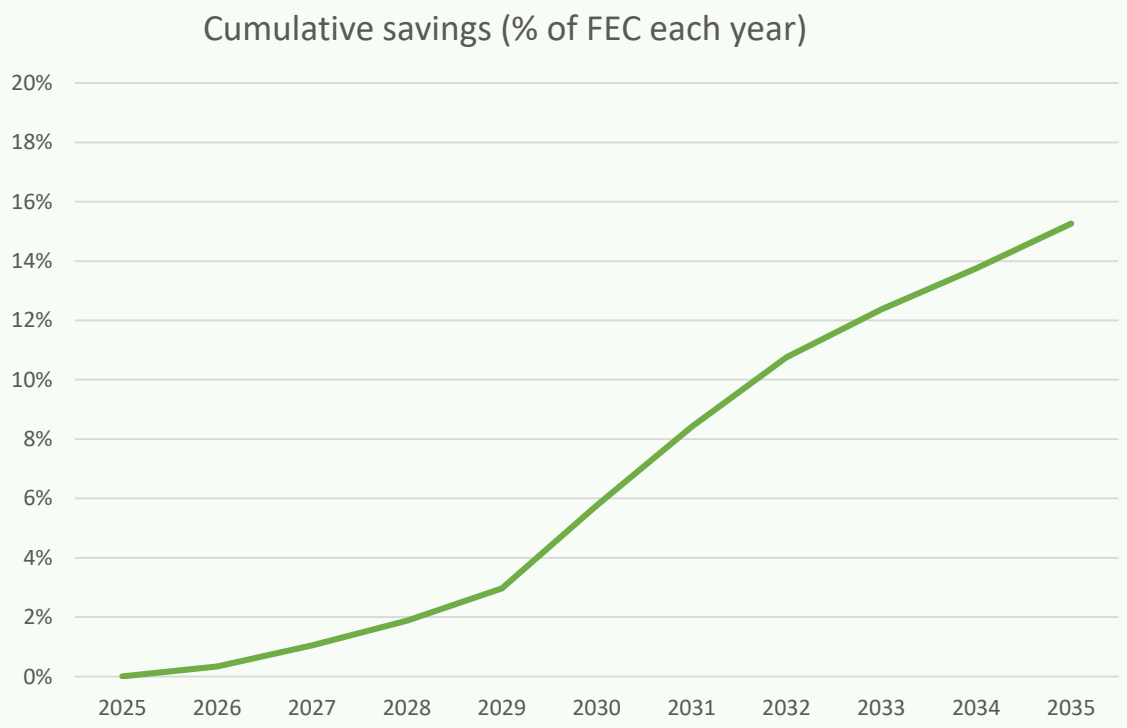


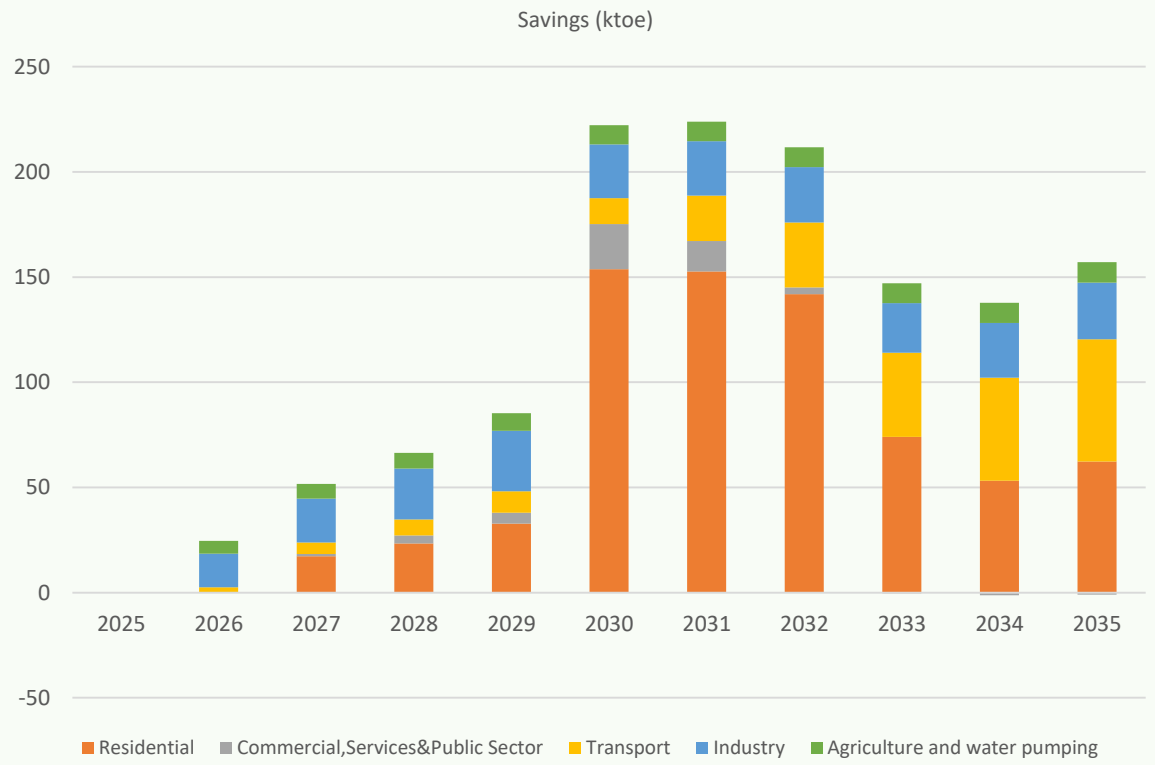
Optimistic Scenario 2035



Key Insights from the Analysis

Energy Efficiency Improvement (Cumulative)

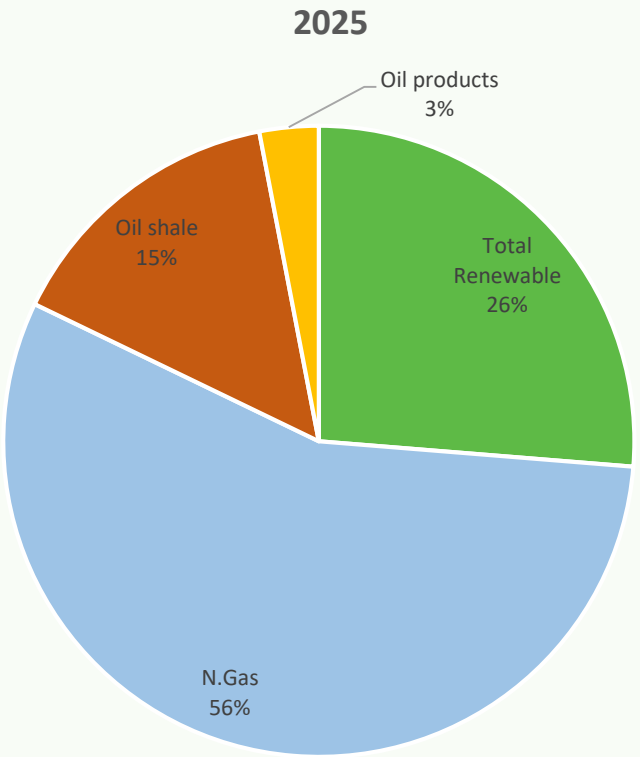


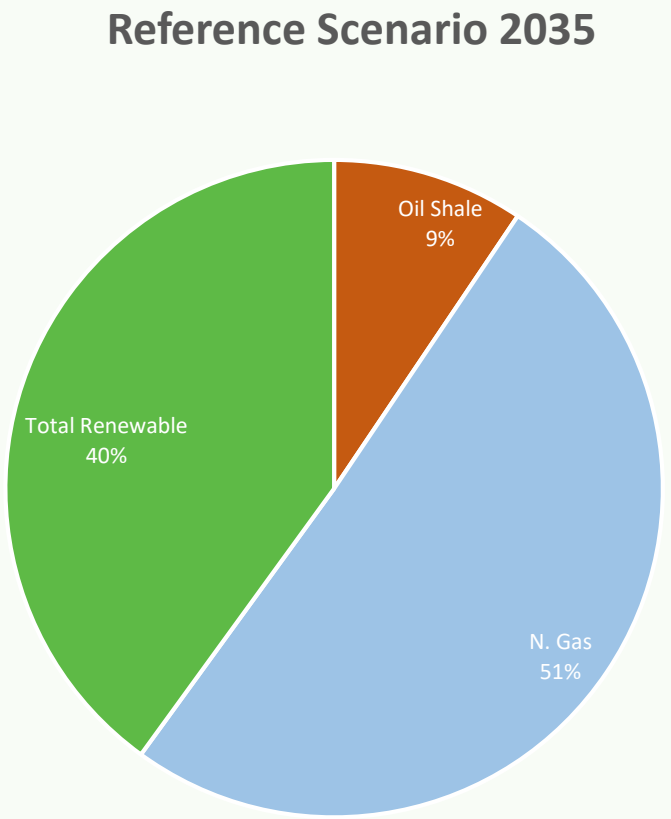


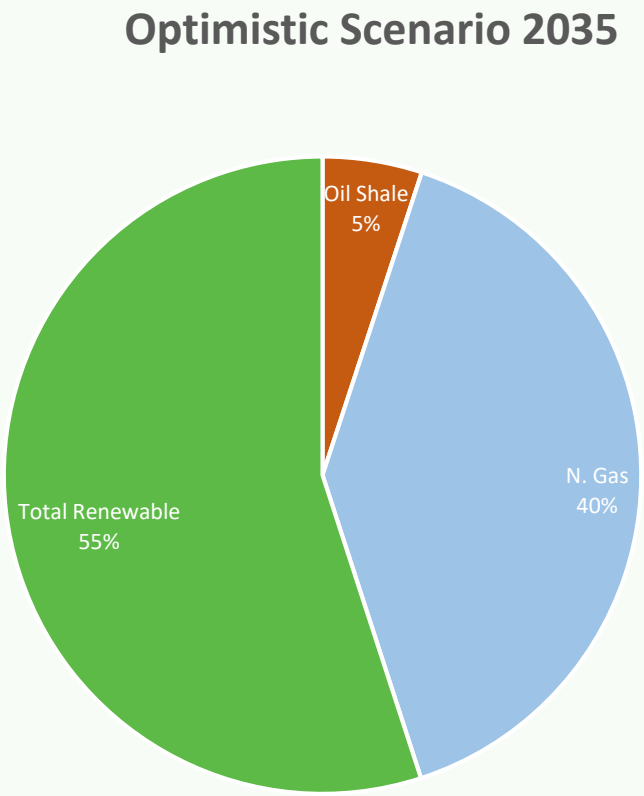
Reference Scenario

Key Insights from the Analysis

Power Sector: Electricity Generation Mix

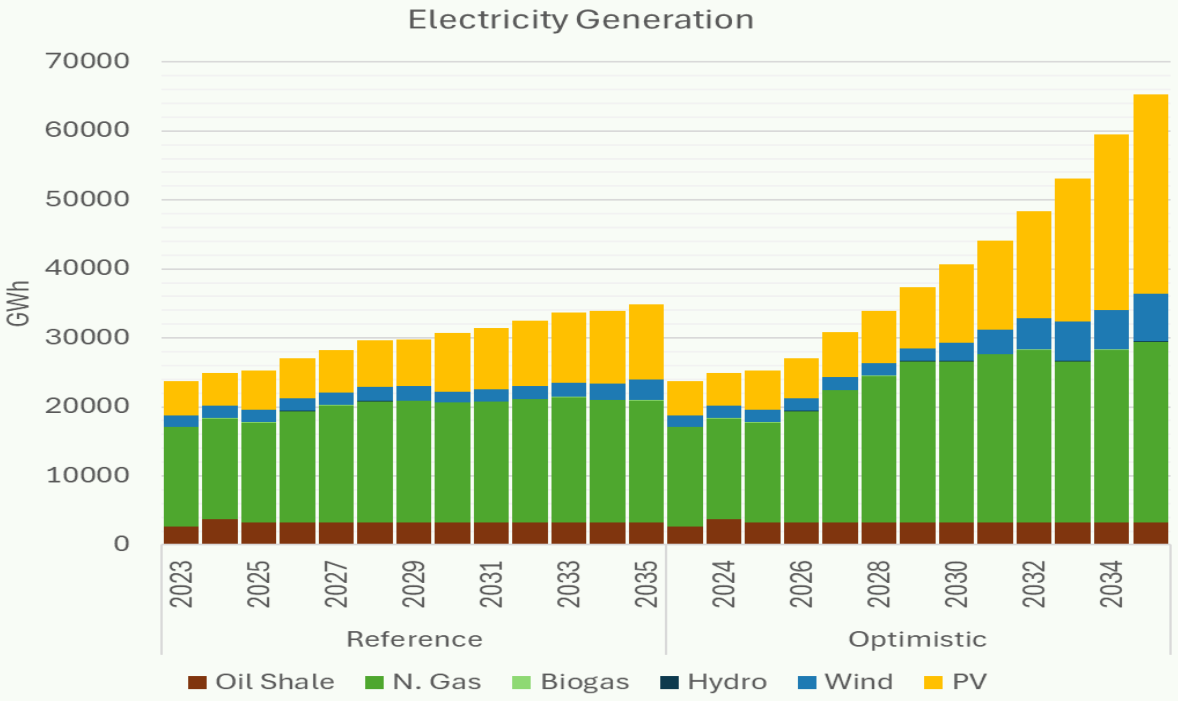


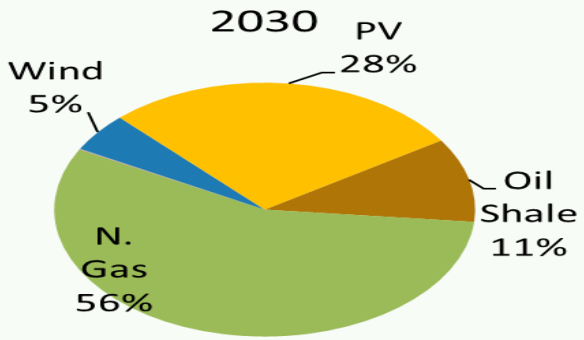


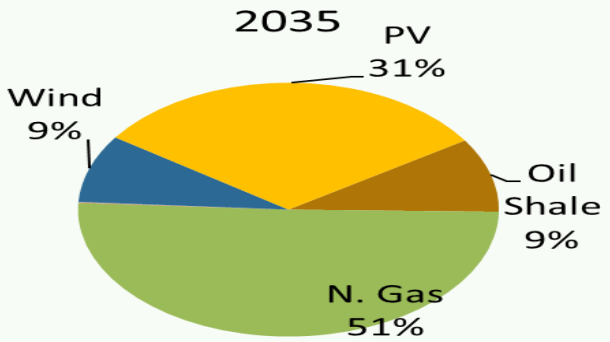


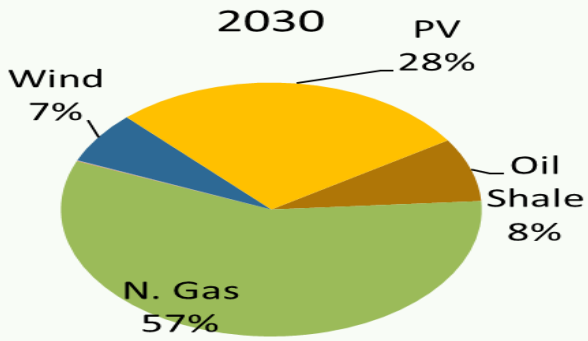
Key Insights from the Analysis

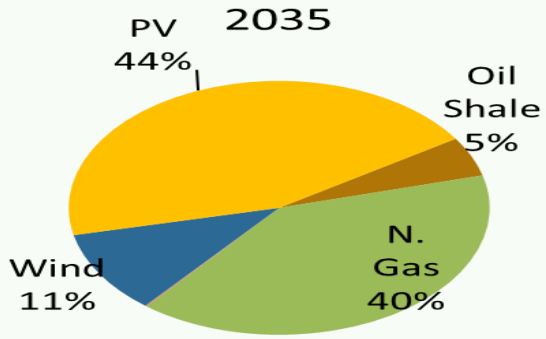
Electricity Generation Mix











التوصيات

No-regret options/ Electrical Energy

- An increase in the share of renewable energy in electricity generation to 40% by 2035 under the base scenario, and to 55% under the optimistic scenario.
- Reducing losses on distribution networks to 8% by 2035 to lower power sector costs.
- Enhancing electrical interconnection to improve grid stability.
- Continued investment in smart meters and grid modernization to boost system efficiency and reliability.
- Studying potential options to leverage electric mobility for Vehicle-to-Grid (V2G) technology, and utilizing second-life batteries for electrical energy storage.
- Investing in fast-charging infrastructure projects.

Recommendations

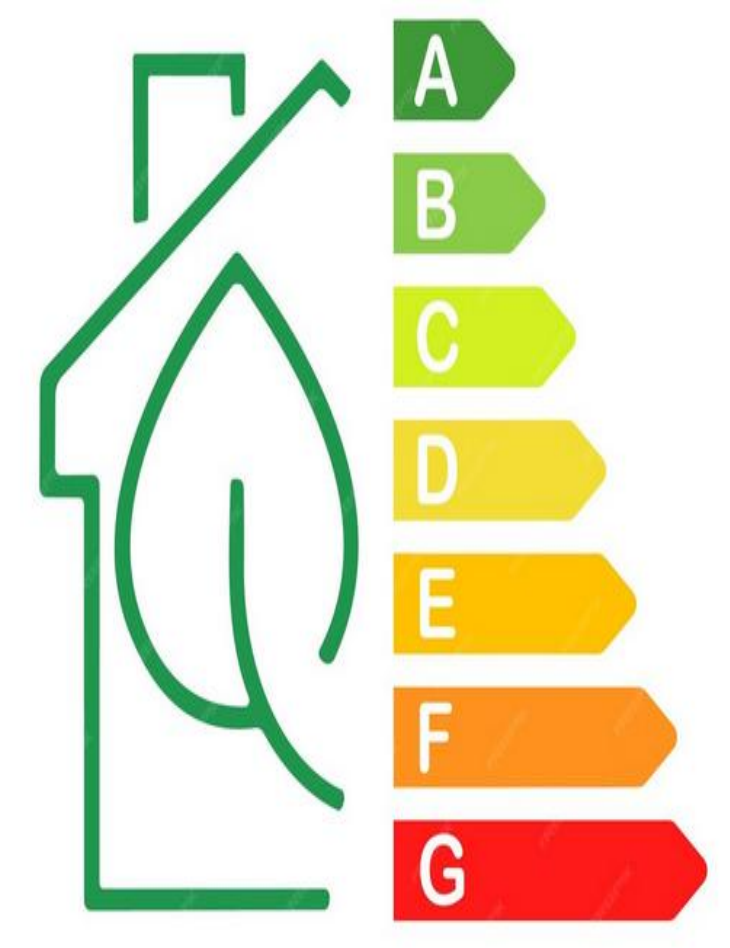
No-regret options / Natural Gas

- Expanding the utilization of gas produced from the Risha gas field.
- Switching to natural gas is a strategic option for industry.
- Expanding gas networks in the cities of Amman and Zarqa as one of the most critical enablers for scaling up domestic natural gas distribution, paving the way to replicate this experience across other governorates whenever viable.

Recommendations

No-regret options / Energy Efficiency

- Implementing National Energy Efficiency Action Plans (NEEAPs).Expanding the use of natural gas in the industrial and residential sectors.
- Expanding the use and installation of solar water heater systems across all sectors to reach 40% in the residential sector by 2035, and to reach 95% in the healthcare and tourism sectors by 2035.Promoting best practices in energy management, such as the ISO 50001 Energy Management Standard.
- Expanding the adoption of electric vehicles and improving infrastructure by increasing the number of charging stations and distributing them across all governorates of the Kingdom.
- Encouraging the use of mass transit.
- Implementing public awareness campaigns on energy conservation and the Time-of-Use (TOU) tariff.
- Implementing the roadmap for energy efficiency and carbon neutrality in the building sector.



Recommendations

No-regret options / **Green Hydrogen**

Continued promotion of Jordan as a regional hub for green hydrogen production and export. This will enhance economic diversification and create new job opportunities leveraging emerging prospects within the industrial and technological sectors, thereby contributing to GDP growth and improving the country's trade balance.

Points to monitor and revisit

Natural Gas Consumption in the Consumption Distribution

Factories and households must be strongly encouraged to connect to the gas distribution network during its development phase.

Actual vs. Projected Gas Production from the Risha Field

It must be updated as development work continues.

Time-of-Use (TOU) Tariff

Impact assessment studies must be conducted across various sectors to evaluate the reduction in peak consumption levels and total final energy consumption.

Technical Grid Constraints

Conducting detailed technical steady-state and dynamic studies for the electrical grid in light of the increasing share of renewable energy, and updating power system operating procedures as needed.

Small Modular Reactors (SMRs) for Electricity Generation

It remains a candidate technology, but it will not emerge as part of the solution until 2035. It could serve as a strategic option for diversification post-2035, leveraging domestic uranium reserves while the Atomic Energy Commission gains experience from international installations.

Ministry of Energy and Mineral Resources

The Hashemite Kingdom Of Jordan

The Energy Sector in Jordan