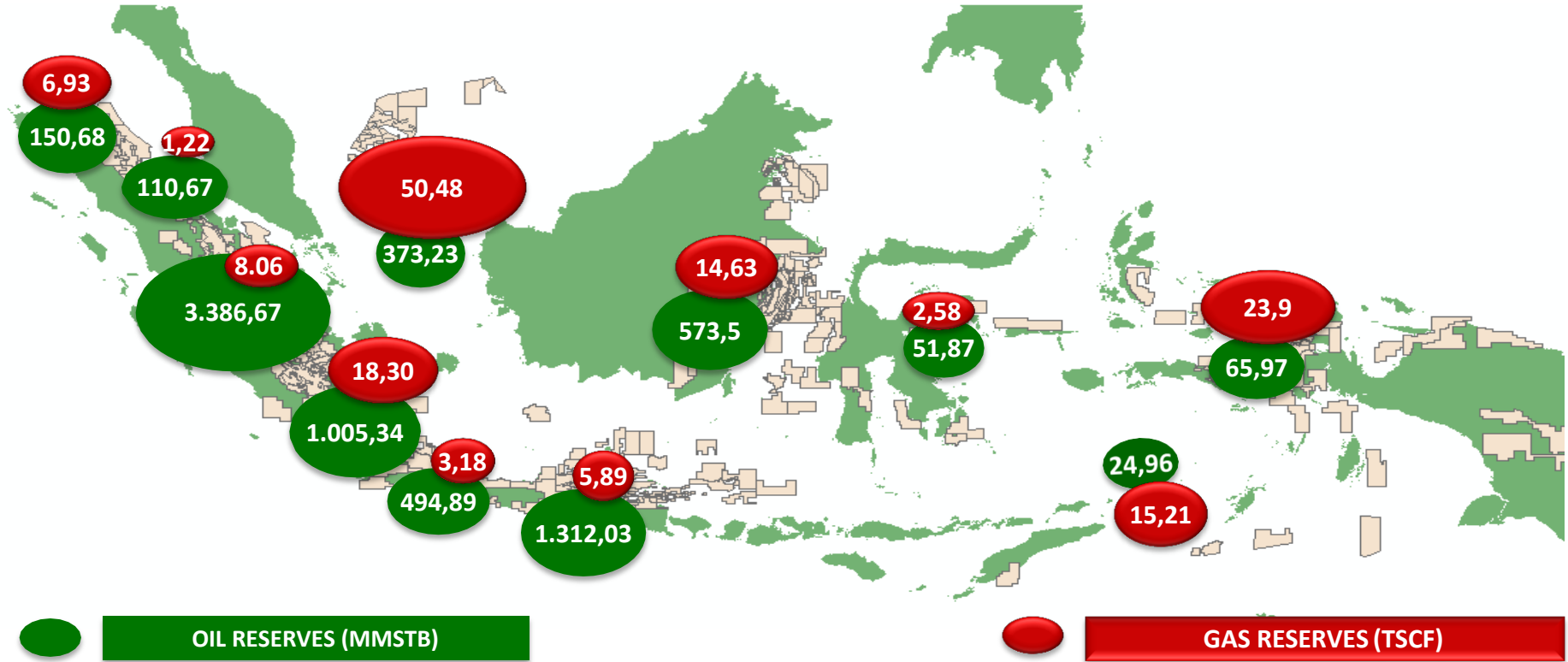


# THE OUTLINE

- **INDONESIA ENERGY CONDITION**
- **INDONESIA ENERGY POLICY-2050**
- **INDONESIA ENERGY OUTLOOK**
- **INTERNATIONAL COOPERATION**

# INDONESIA OIL AND GAS RESERVES

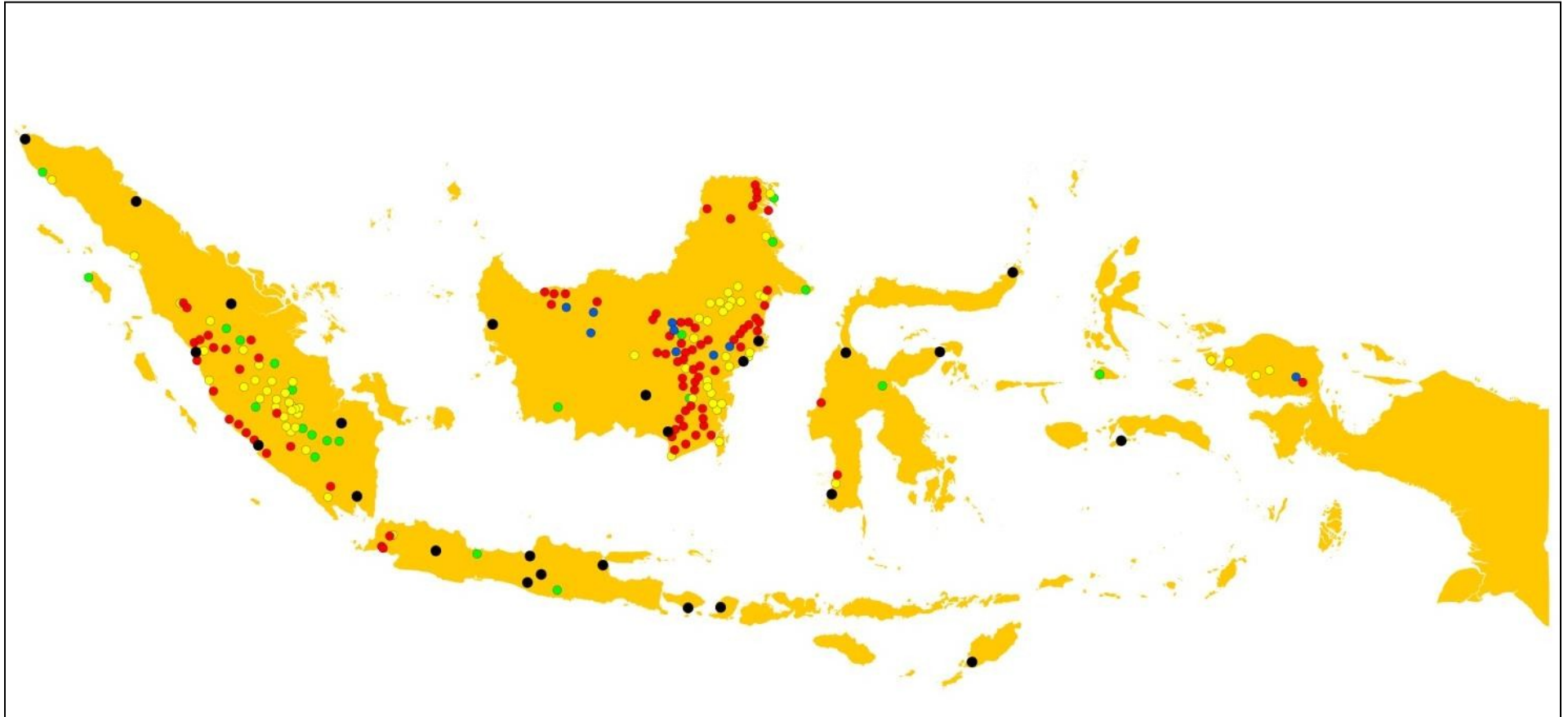


PROVEN = 3.692,49  
 POTENTIAL = 3.857,31  
 TOTAL = 7.549,81

PROVEN = 101,54  
 POTENTIAL = 48,85  
 TOTAL = 150,39

Source: MEMR, 2013, reprocessed by DEN

# INDONESIA COAL RESOURCES



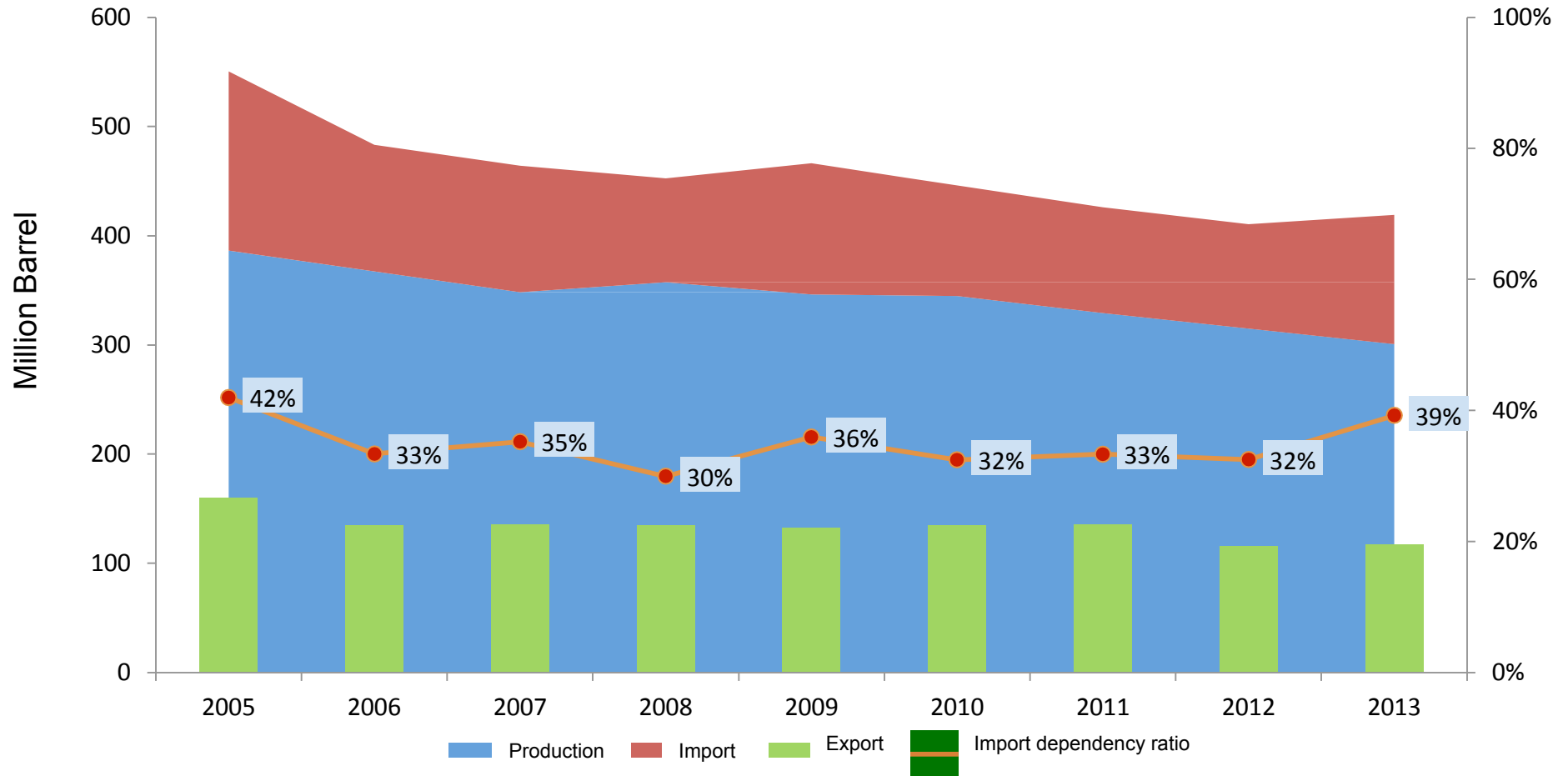
Source: MiEMR, 2013, reprocessed by DEN

- Low Rank (> 5,100 kal/gr ADB)
- Medium Rank (5,100 - 6,100 kal/gr ADB)
- High Rank Very (6,100 - 7,100 kal/gr ADB)
- High Rank (< 7,100 kal/gr ADB)

Resources: 120,53 billion Ton

Reserves : 31,36 billion Ton

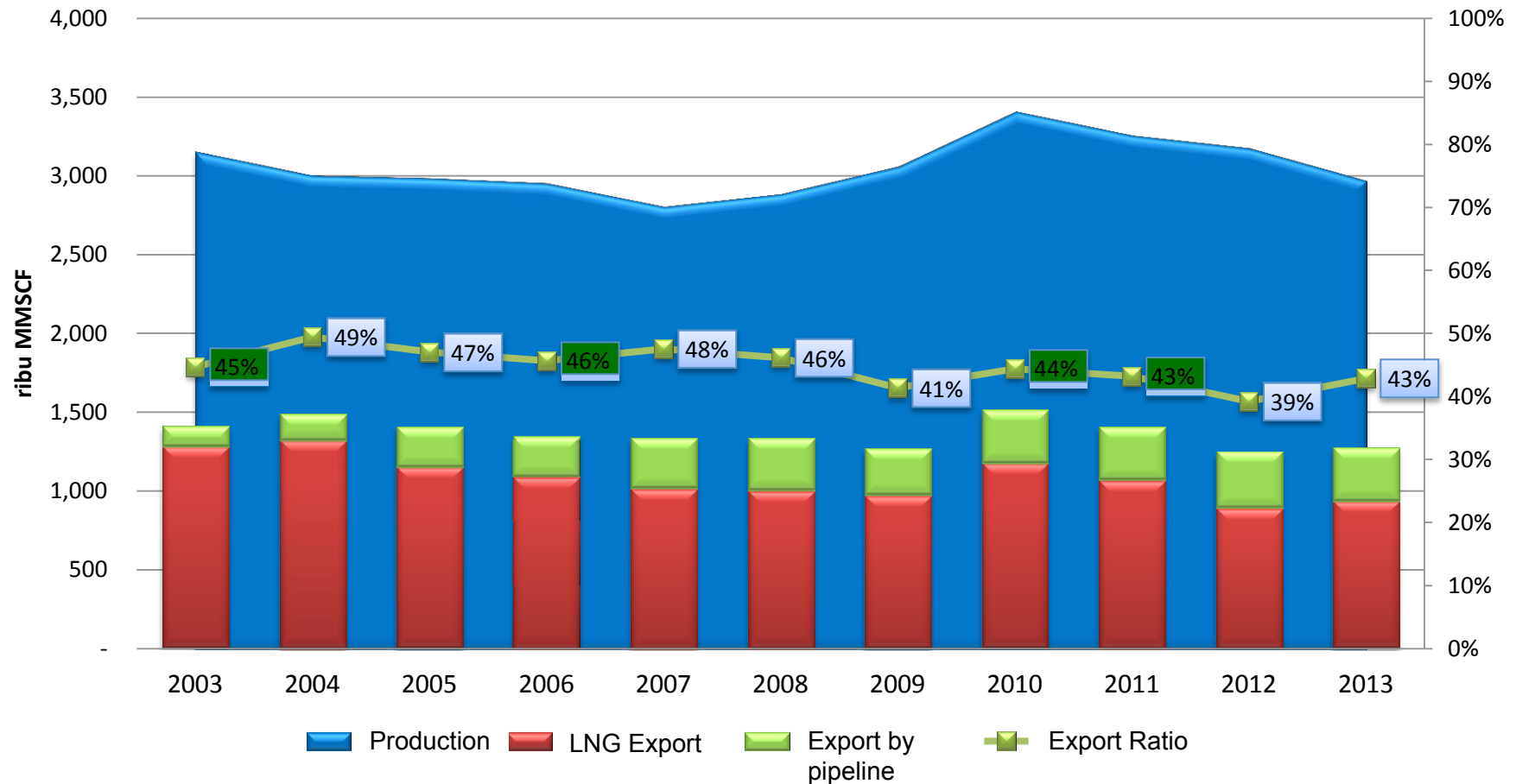
# OIL PRODUCTION, IMPORT AND EXPORT



Source: MEMR, 2013, reprocessed by NEC

Note: Import dependency ratio = Import / Domestic Consumption

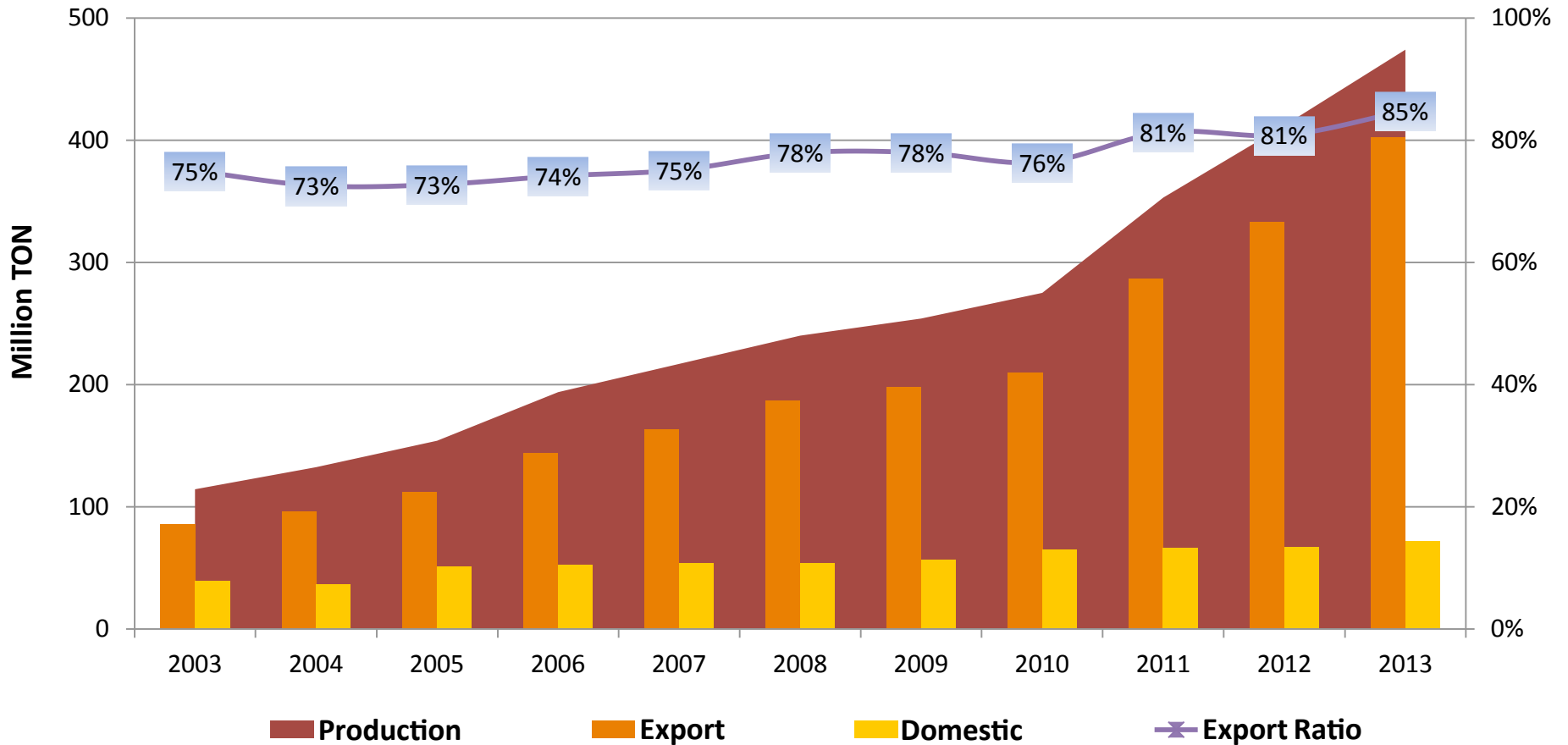
# NATURAL GAS PRODUCTION AND EXPORT



Source: MEMR, 2013, reprocessed by NEC

Note:  $Export\ Ratio = \frac{Export}{Production}$

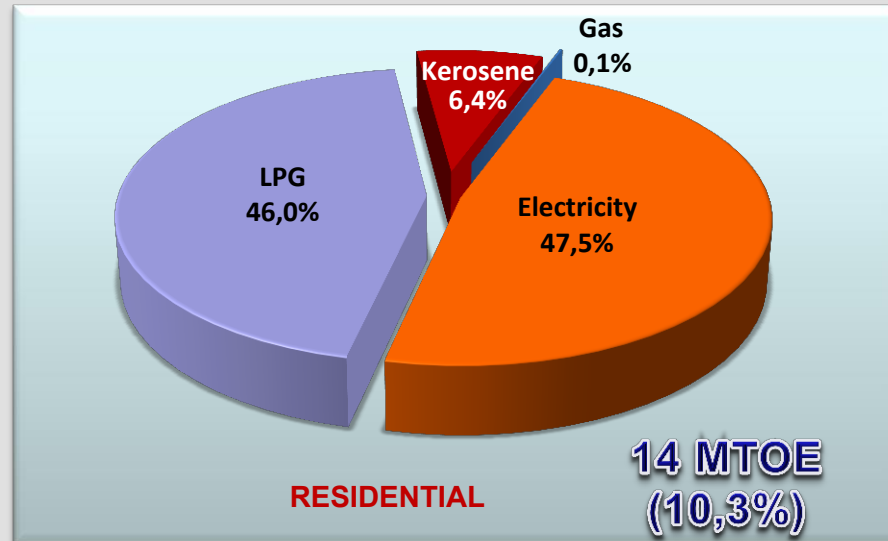
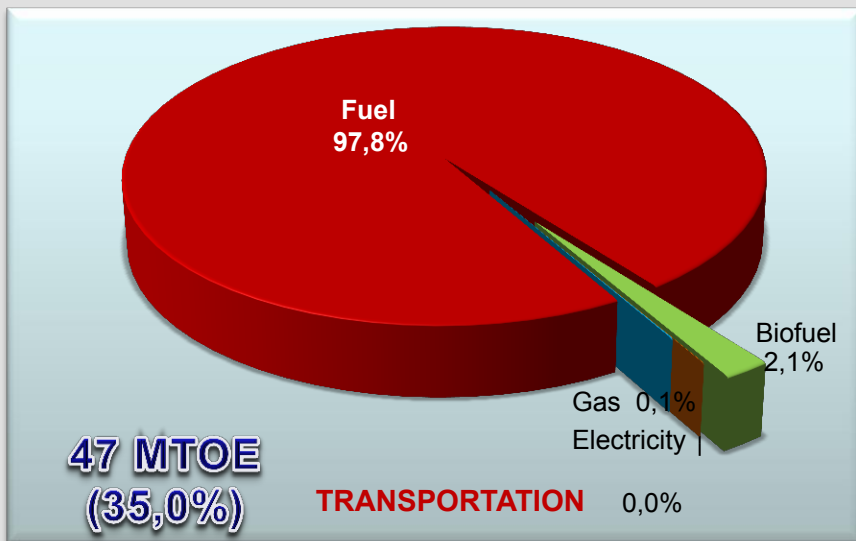
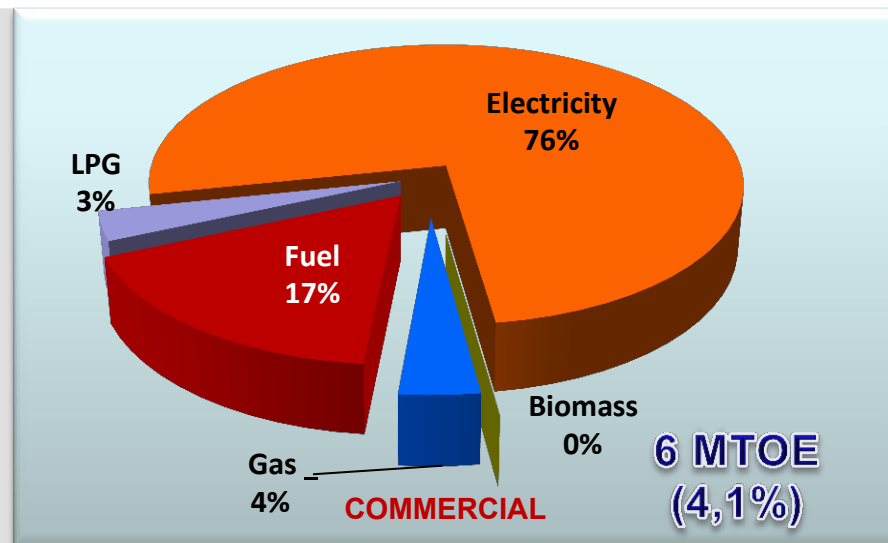
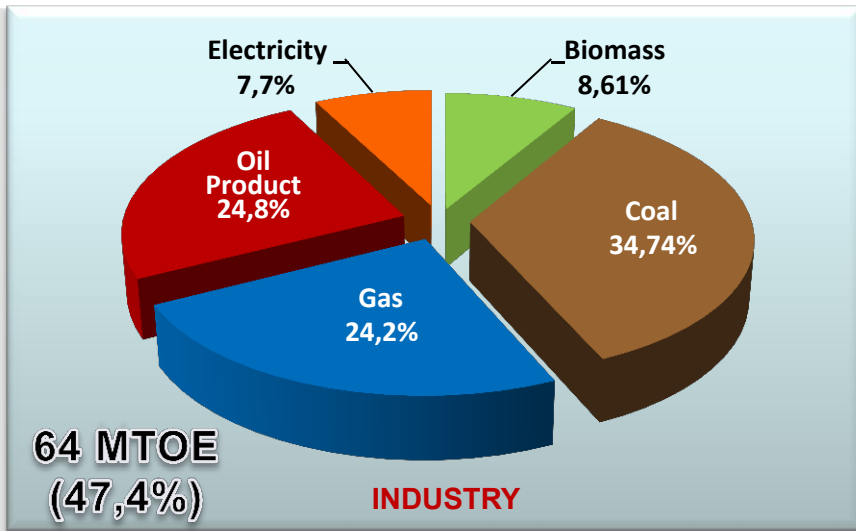
# COAL PRODUCTION AND EXPORT



Source: MEMR, 2013, reprocessed by NEC

Note: Export Ratio =  $\frac{\text{Export}}{\text{Production}}$

# FINAL ENERGY CONSUMPTION OF INDONESIA



# INDONESIA ENERGY POLICY - 2050



## THE SPIRIT OF INDONESIA ENERGY POLICY - 2050

**Shift The Paradigm in National Energy Utilization**

***“Energy Resources Devoted to National Development  
Rather Than as an Export Commodity  
Used for  
The Greatest Prosperity of The Poeples”***

# **THE MAIN FACTOR IN NATIONAL ENERGY POLICY**

- **Gradual Reduction and Stop Export of Energy Fossil**

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- **Gradual Reduction and Stop Export of Energy Fossil**
- **Regionalization of Planning and Development**
- **Gradual Reduction of Subsidies depend on The People's Purchasing Power**
- **Develop The Strategic Reserve**
- **Desentralization of Responsibility and Authority**

# DECENTRALIZATION OF RESPONSIBILITY

- **Local Governments** Responsible for **handling and solving the energy problems in accordance with its authority..**

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- The central government and **local government** in setting pay attention to energy supply growth target objectives of economic growth, and **provides for allocation of funds for developing and strengthening infrastructure energy.**

# **ENERGY DEVELOPMENT PRIORITY**

- **Maximizing the use of renewable energy.**

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- Using coal as the balance of the national energy supply

# ENERGY DEVELOPMENT PRIORITY

- Maximizing the use of renewable energy.
- Minimizing the use of petroleum
- Optimizing the utilization of natural gas
- Using coal as the balance of the national energy supply.
- Consider nuclear energy as a last choice.

# THE IMPORTANT ISSUES OF RENEWABLE ENERGY

- **The implementation of the Feed in Tariff** mechanism in determining the selling price of Renewable Energy (RE).



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- Government regulate the renewable energy market, including **a minimum quota of electricity and fuels derived from renewable energy.**

# RE Feed in Tariff

Solar : USD 25 up to 30 cents / kWh.

Geothermal : USD 11 up to 29 cents / kWh .

Biogas : Rp 1.150 up to Rp 1400 / kWh

Micro hydro : USD 11 up to 13 cents / kWh.

# THE IMPORTANT ISSUES OF RENEWABLE ENERGY

- **Increasing the role of national banks** in financing activities of oil and gas production nationwide, the development of renewable energy, and energy-saving program.

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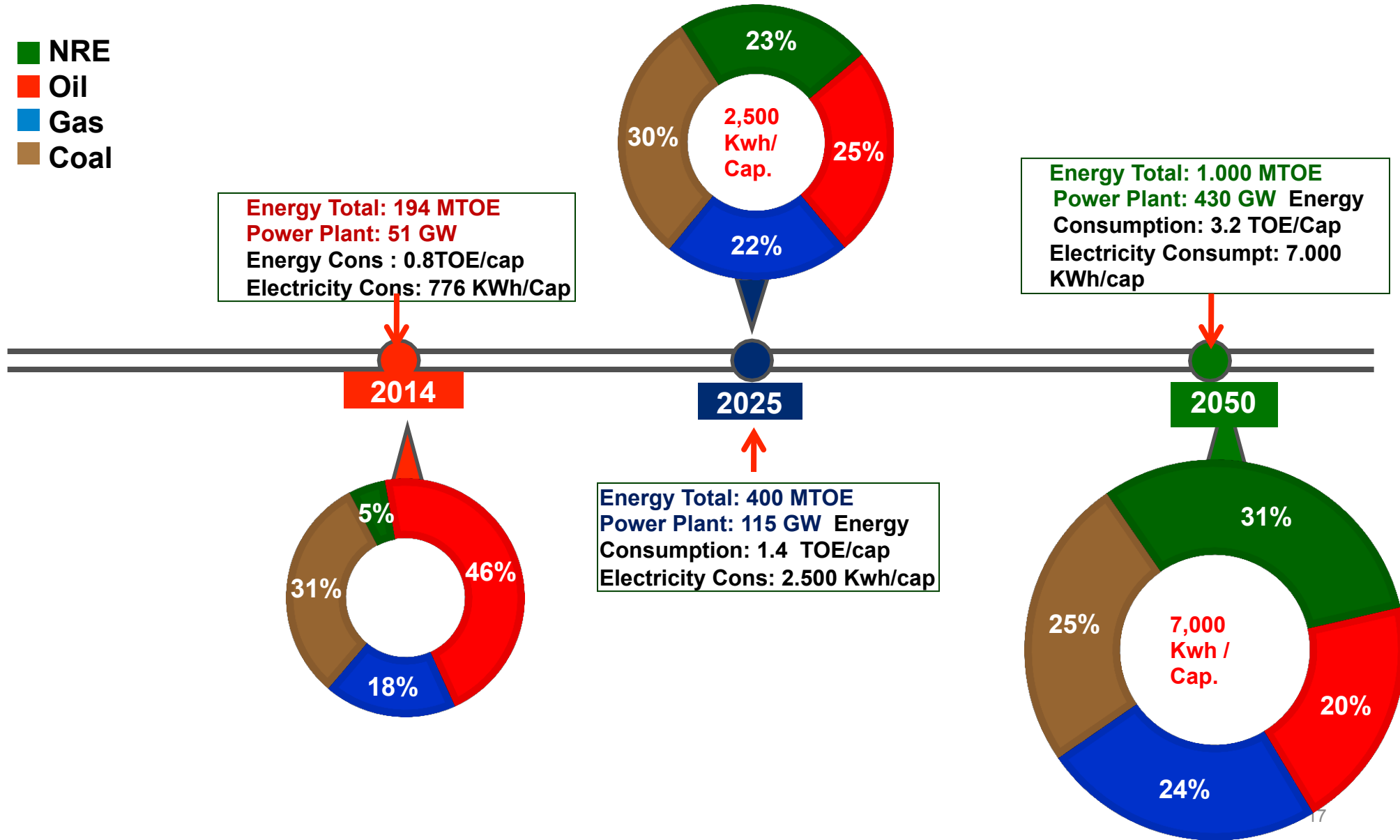
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- Central Government and local governments to **provide incentives (fiscal and non-fiscal) for the development and utilization of renewable energy.**
- Applying fossil energy **depletion premium for renewable energy development** and others.

# ENERGY MIX TARGET TO 2050

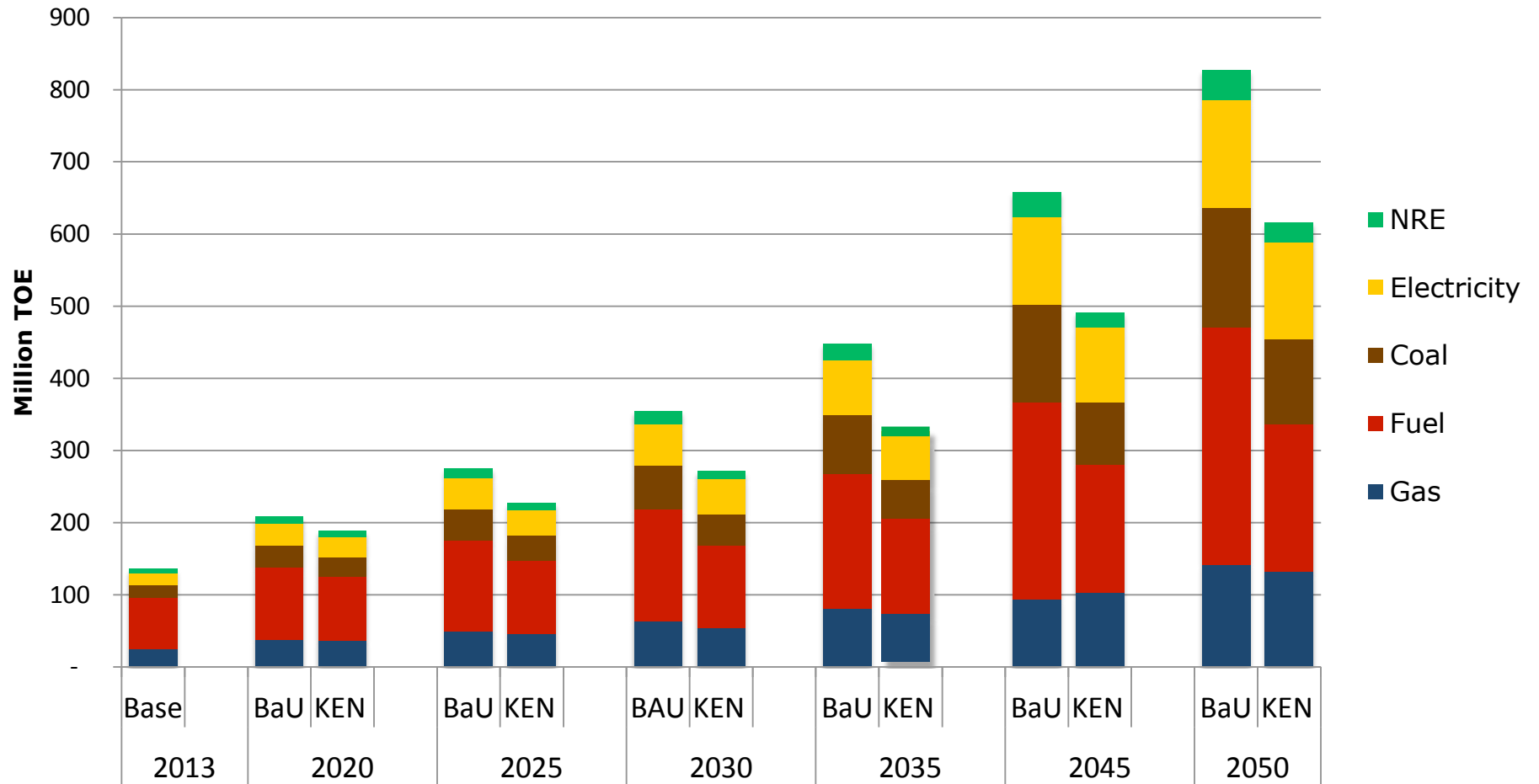
- NRE
- Oil
- Gas
- Coal





# INDONESIA ENERGY OUTLOOK

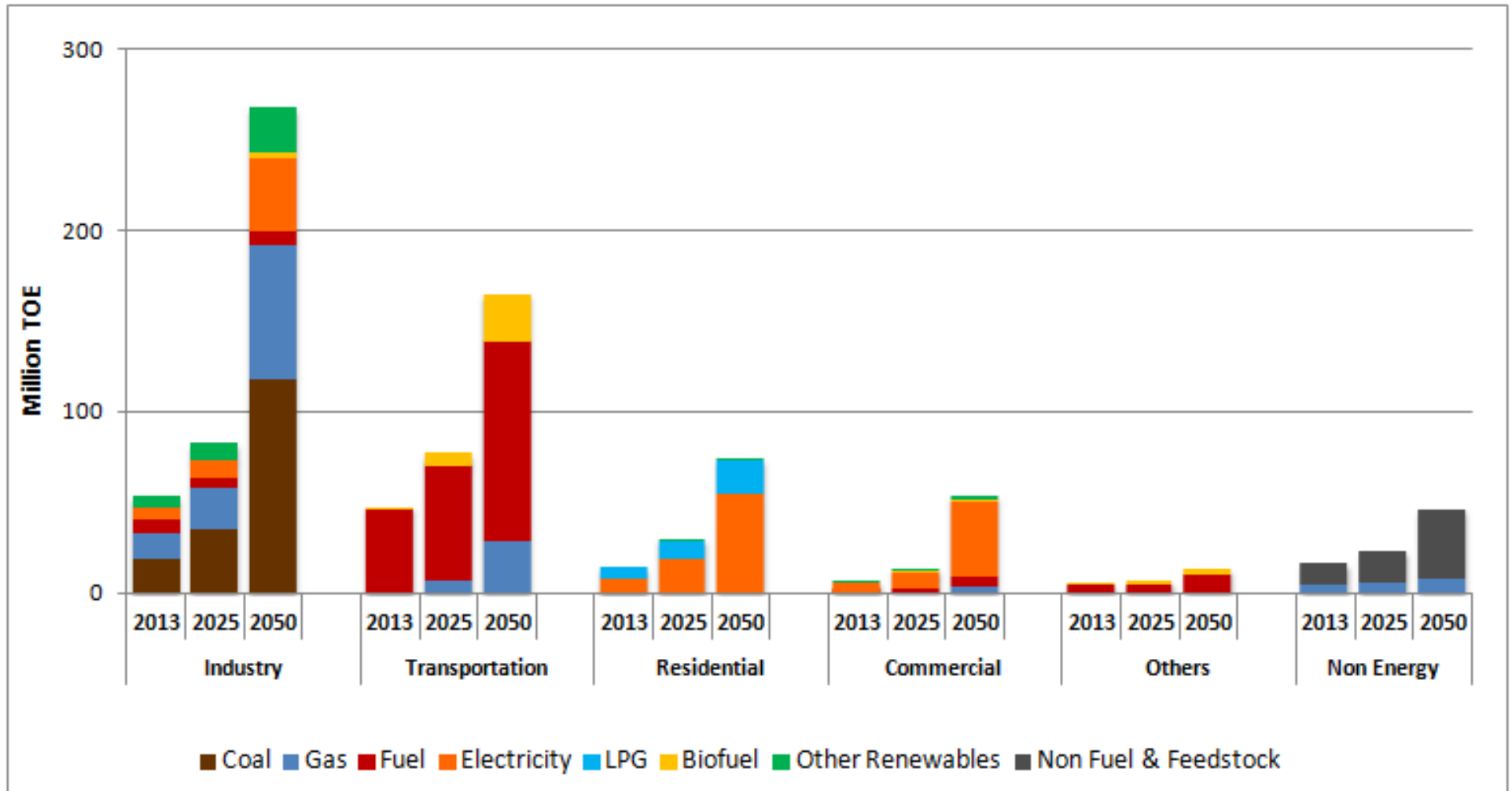
# FINAL ENERGY DEMAND PROJECTION BY TYPE OF ENERGY



Note: Exclude traditional biomass  
Source: NEC Calculation

KEN = National Energy Planning

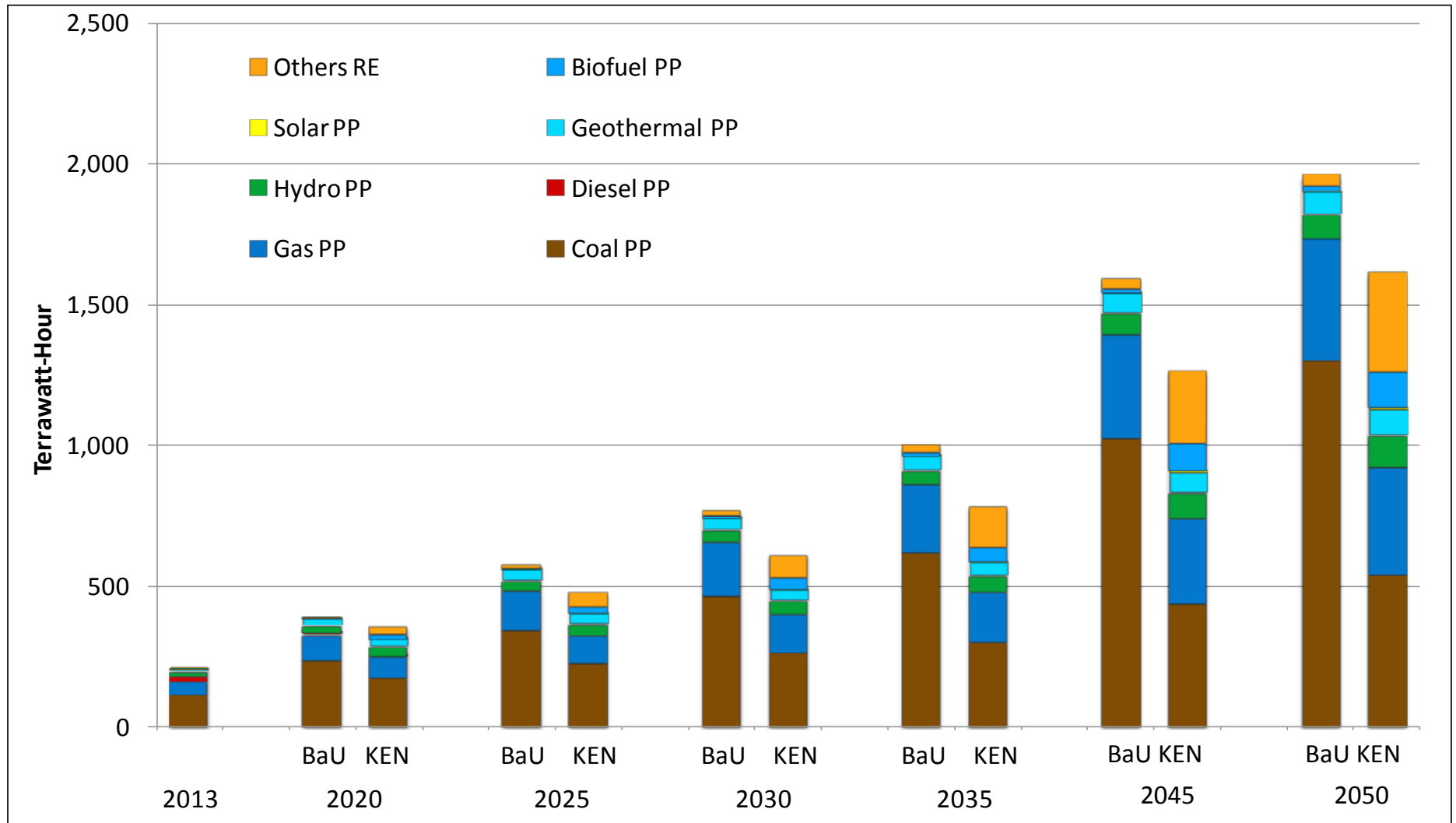
# FINAL ENERGY DEMAND GROWTH BY SECTOR (KEN)



Note: Exclude traditional biomass  
Source: NEC Calculation

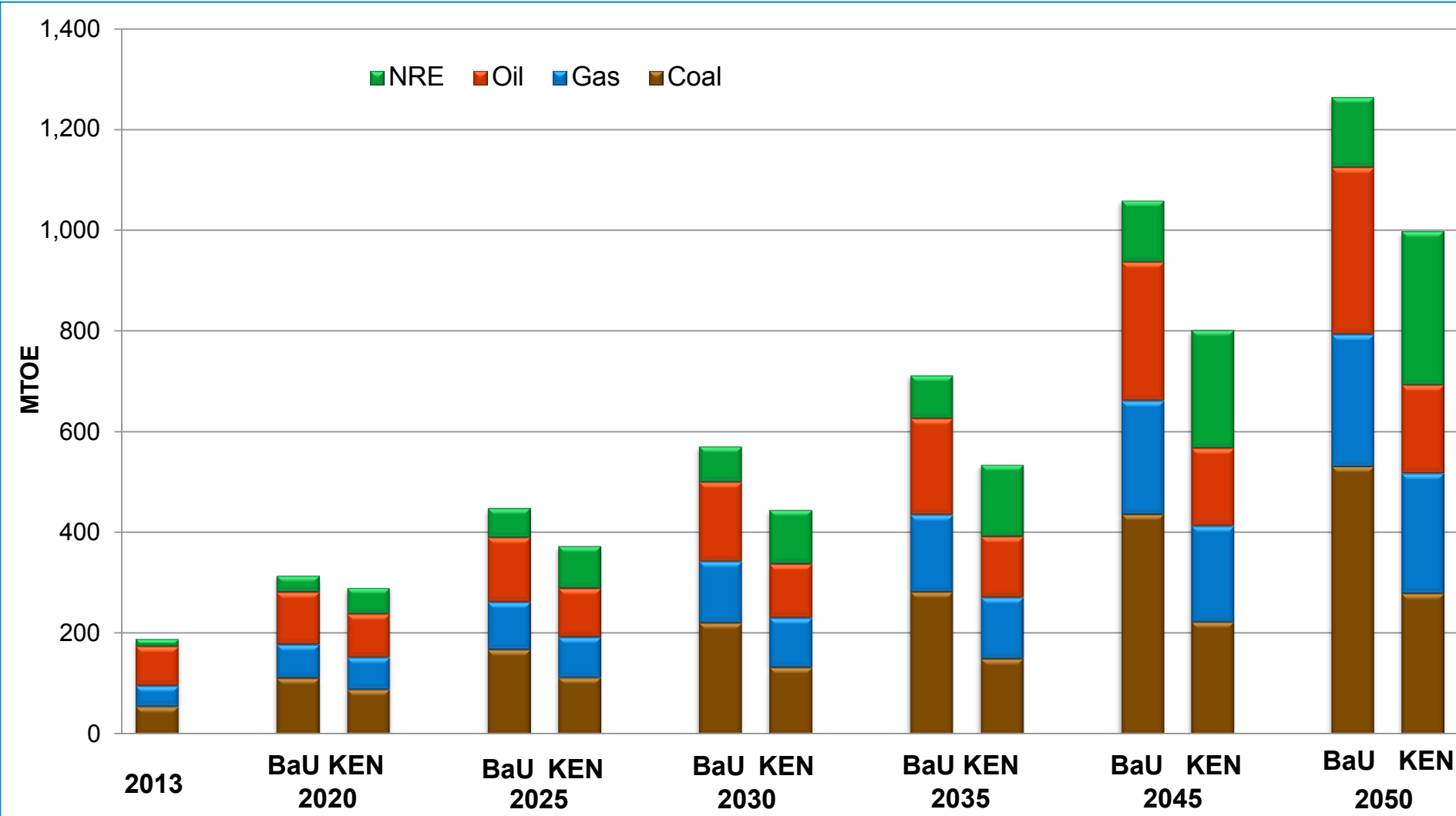
K E N = National Energy Planning

# ELECTRIC POWER SUPPLY PROJECTION



K E N = National Energy Planning

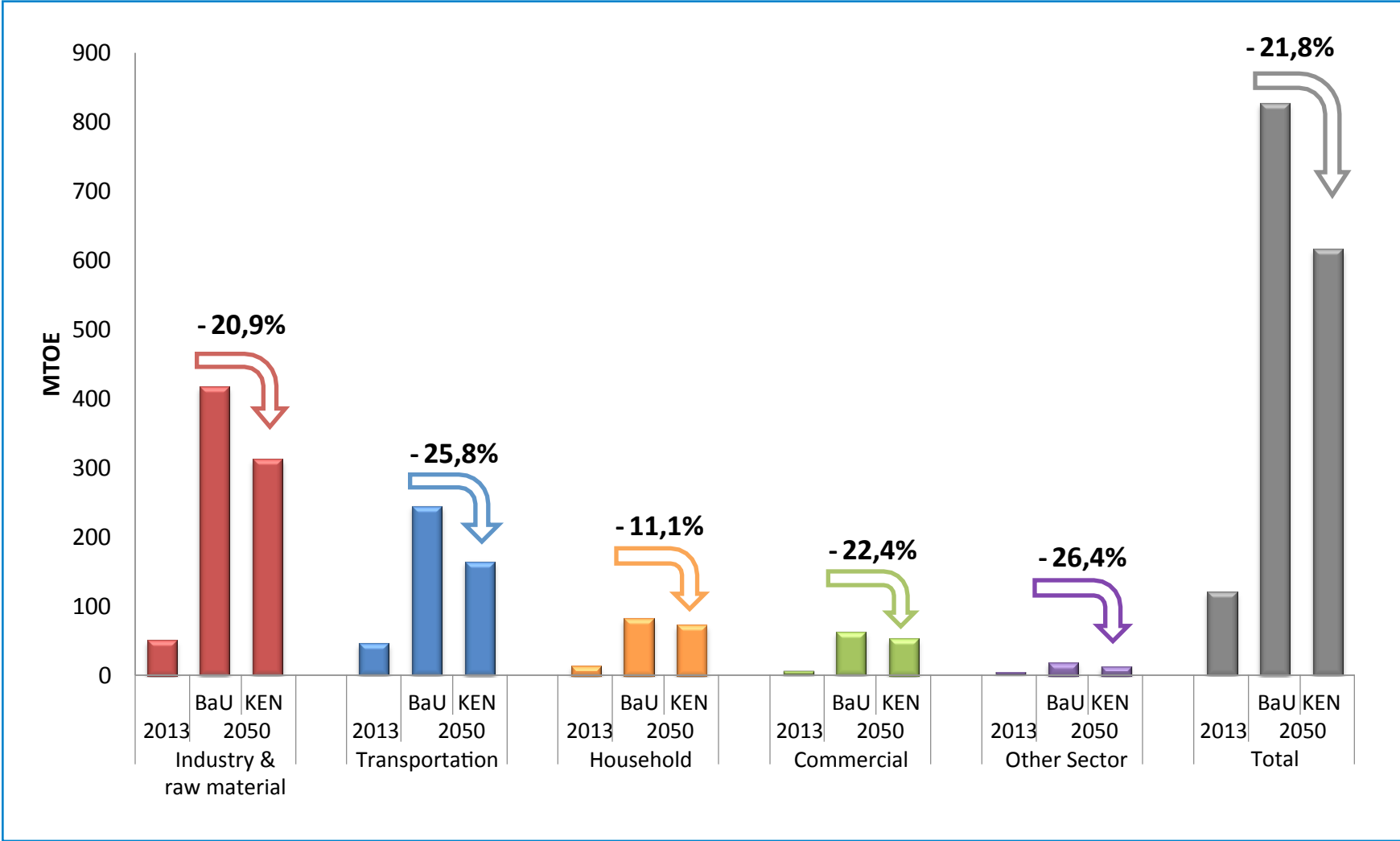
# PRIMARY ENERGY SUPPLY PROJECTION



**K E N = National Energy Planning**

# FINAL ENERGY SAVING POTENTIAL

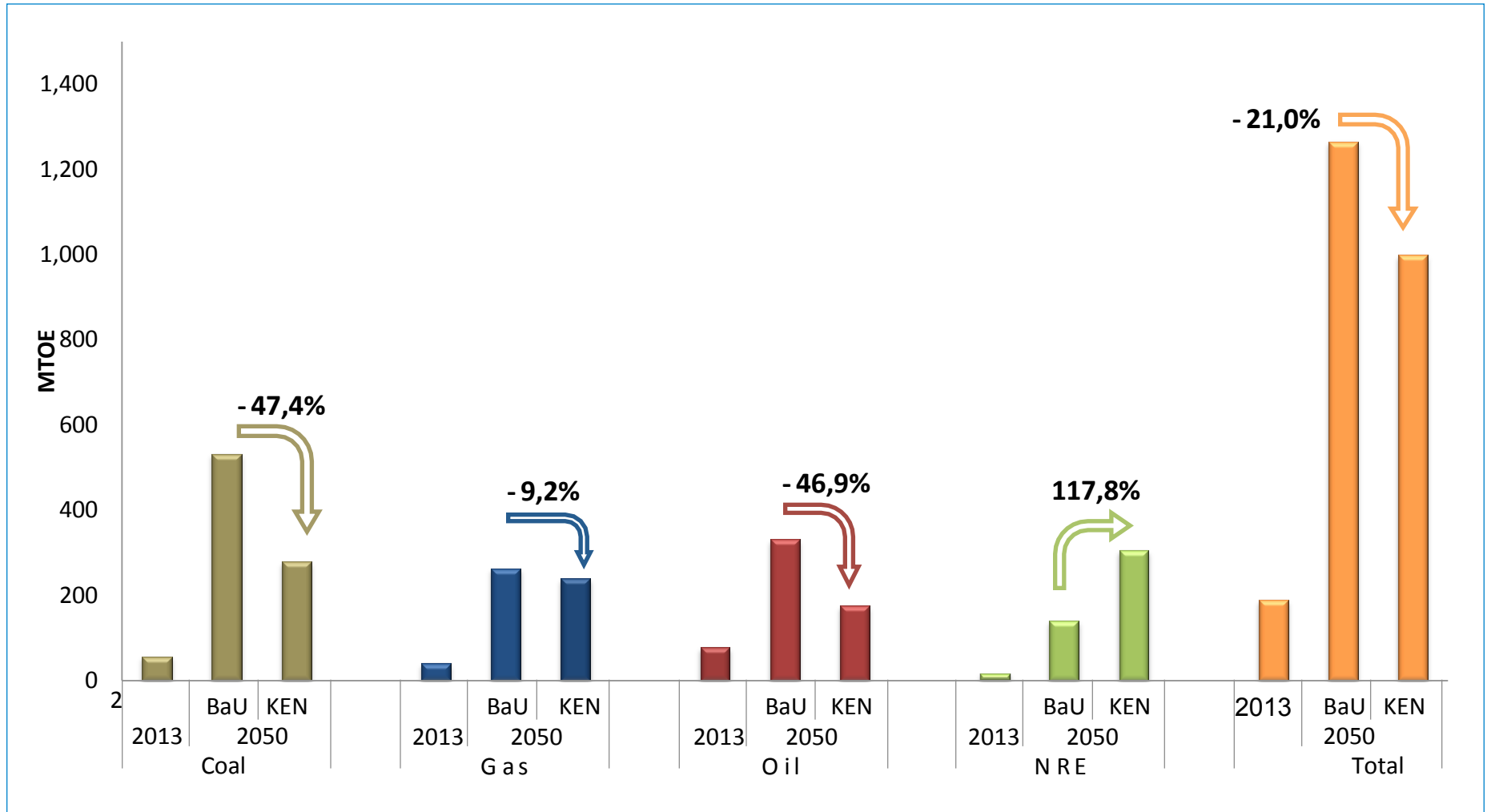
(If KEN be performed consistently)



**K E N = National Energy Planning**

# CHANGES IN PRIMARY ENERGY SUPPLY

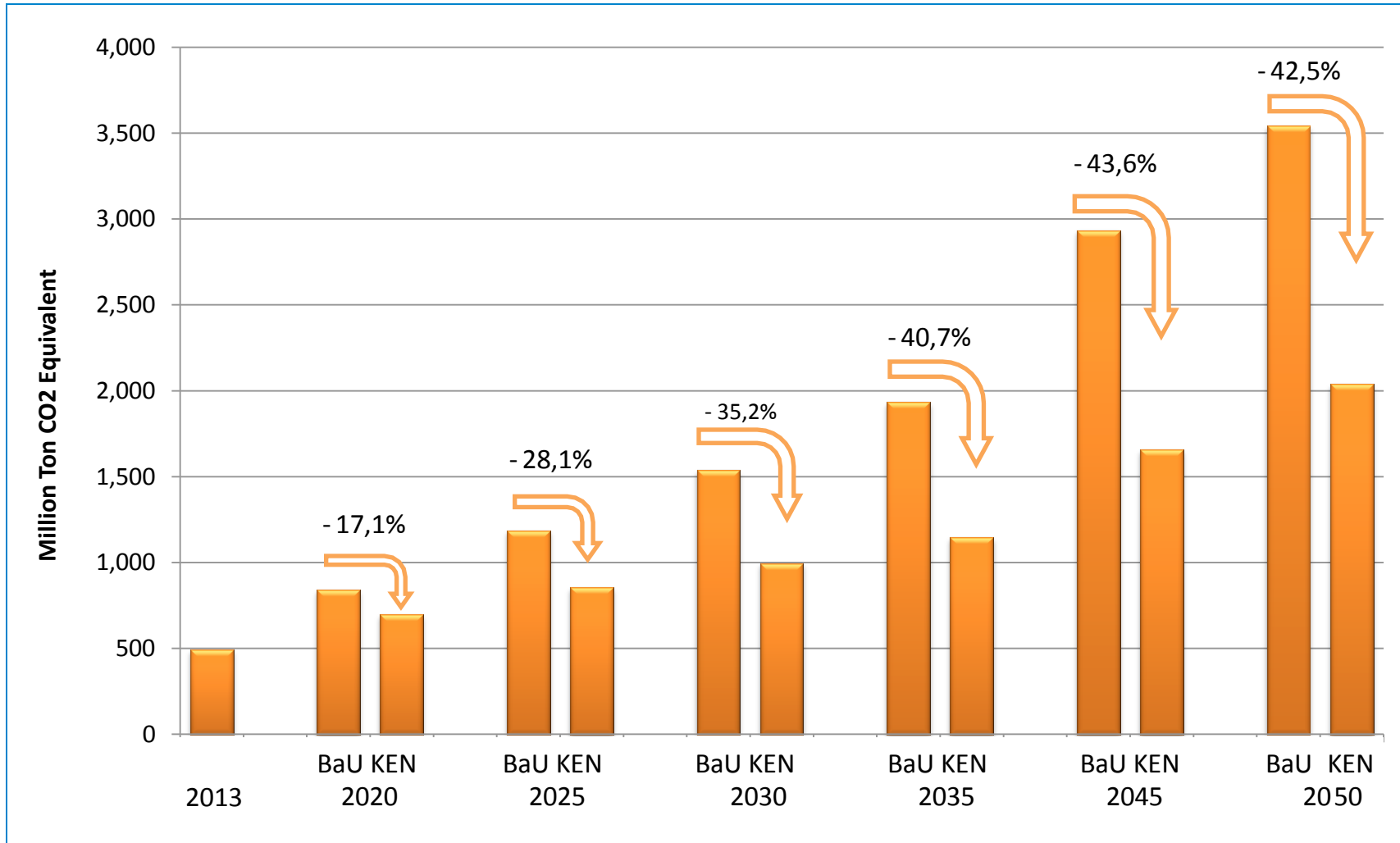
(If KEN be performed consistently)



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# CO2 EMISSION REDUCTION POTENTIALS

(If KEN be performed consistently)

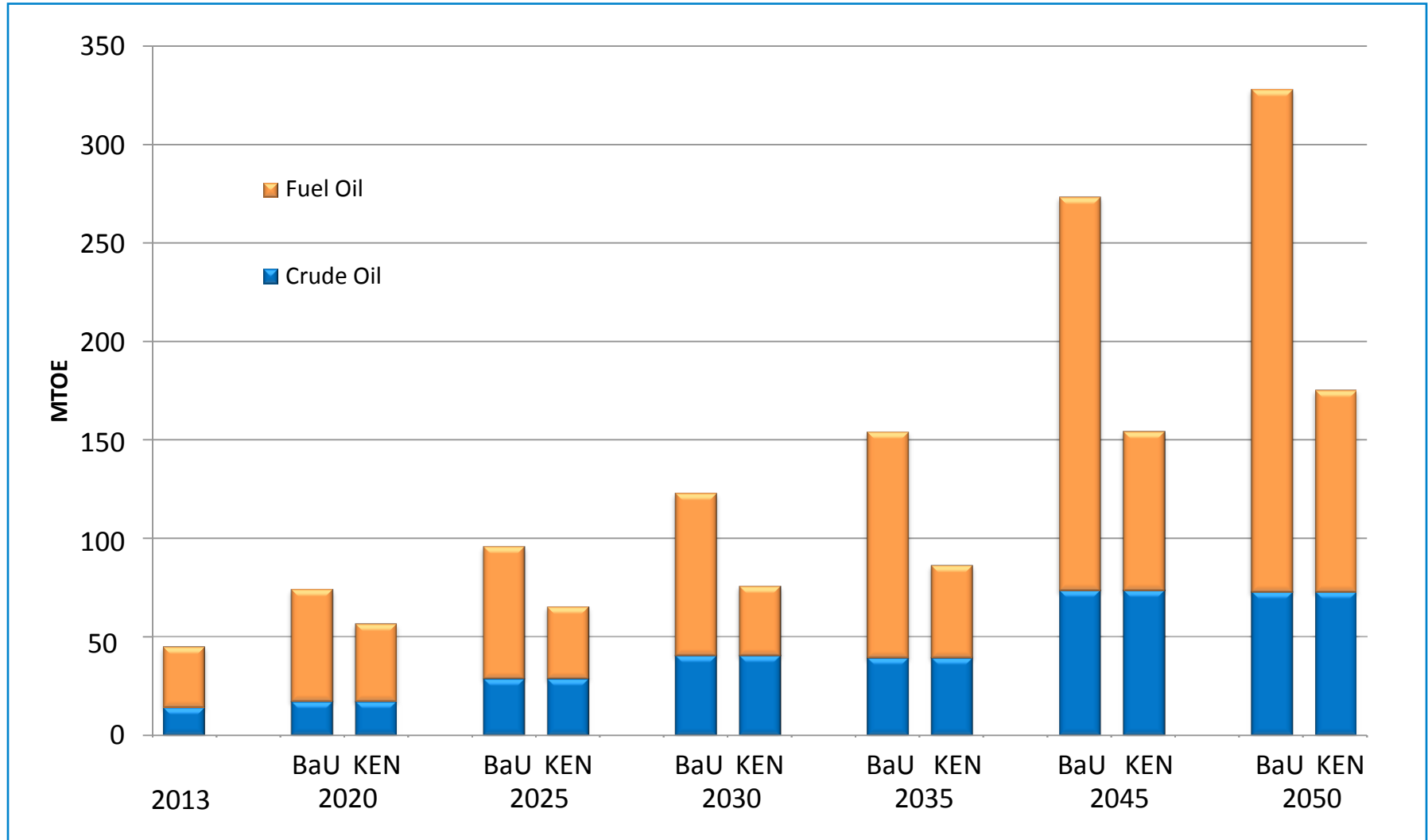


**K E N = National Energy Planning**



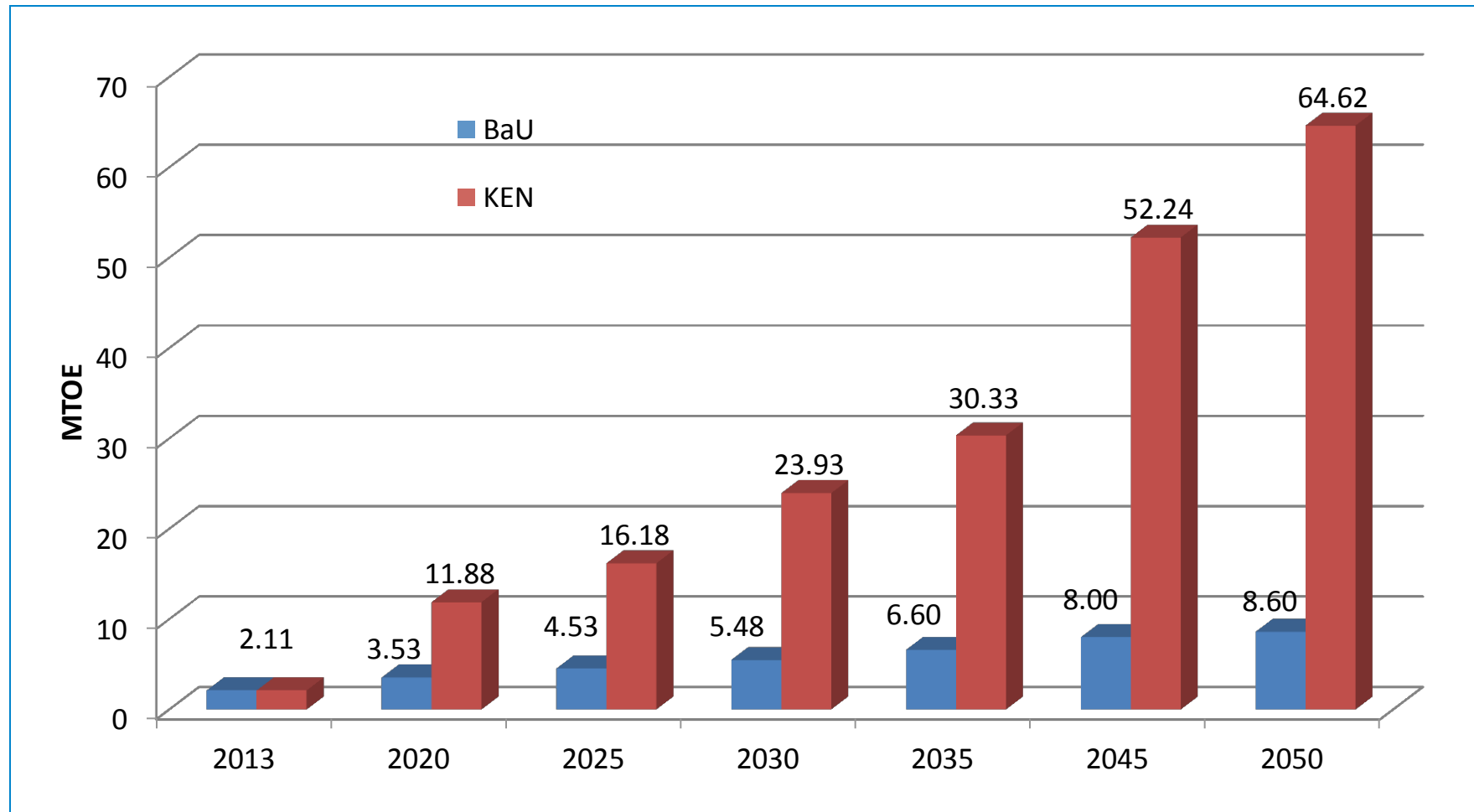
# CRUDE OIL AND FUEL OIL IMPORTS

(If KEN be performed consistently)

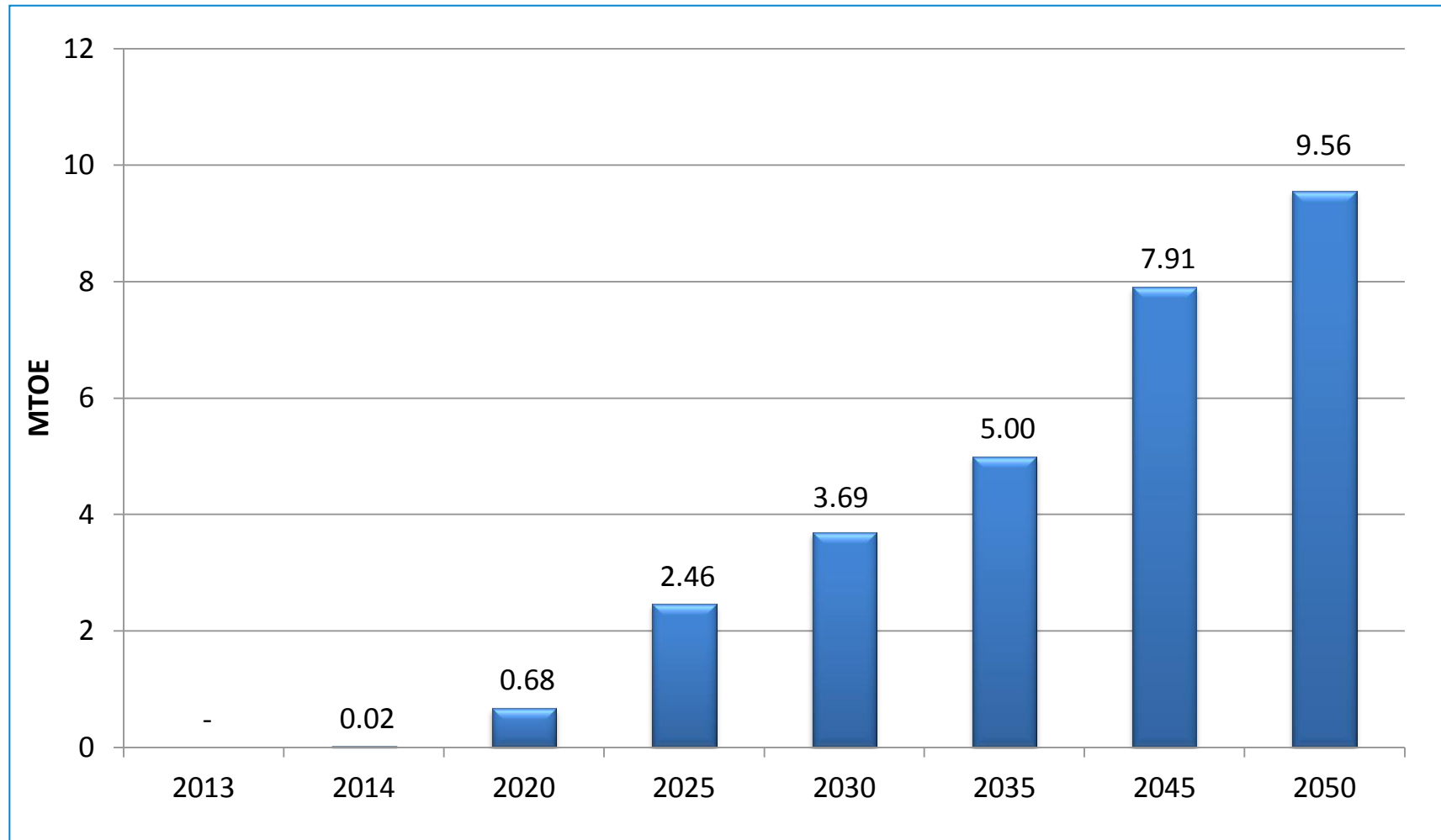


**K E N = National Energy Planning**

## BIODIESEL DEMAND (If KEN be performed consistently)



## BIOETANOL DEMAND (If KEN be performed consistently)

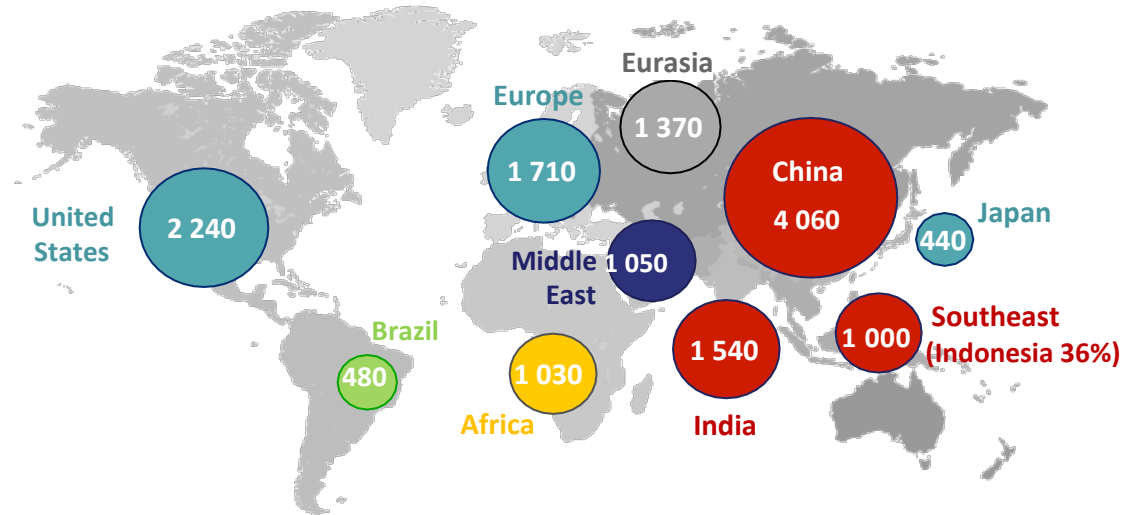


# INTERNATIONAL COOPERATION

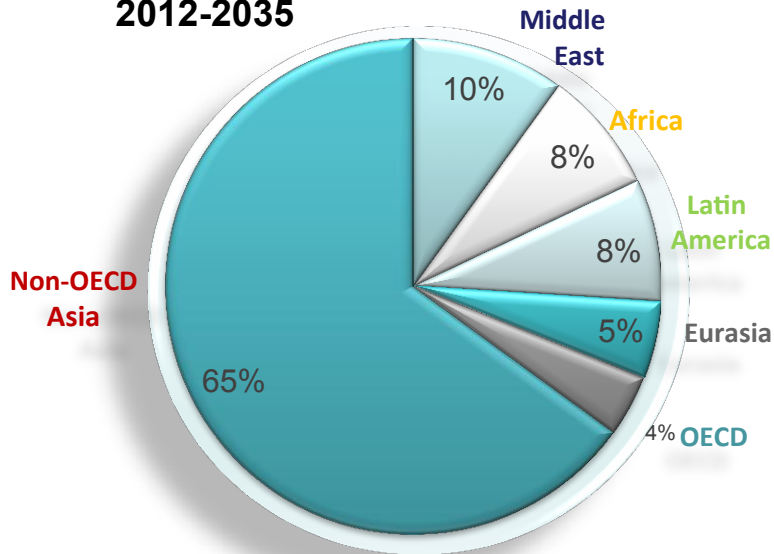
# World Energy Demand

*China is the main driver of increasing energy demand in the current decade, but India takes over in the 2020s as the principal source of growth*

Primary energy demand, 2035 (Mtoe)

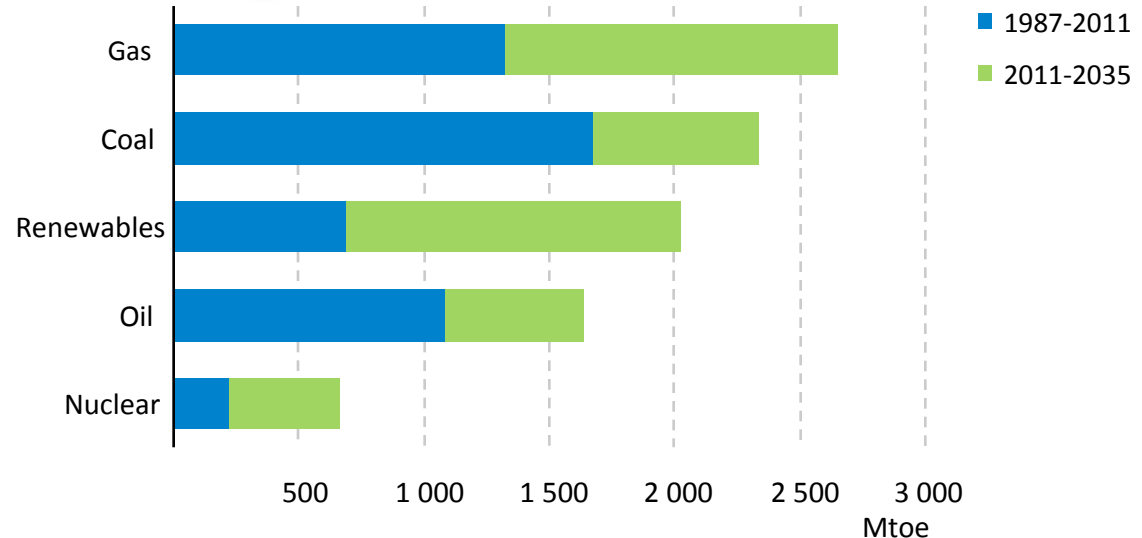


Share of global growth 2012-2035



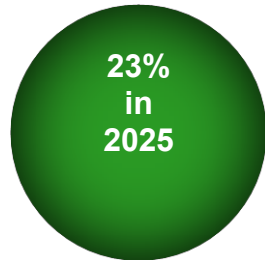
Today's share of fossil fuels in the global mix, at 82%, is the same as it was 25 years ago; the strong rise of renewables only reduces this to around 75% in 2035

Growth in global energy demand



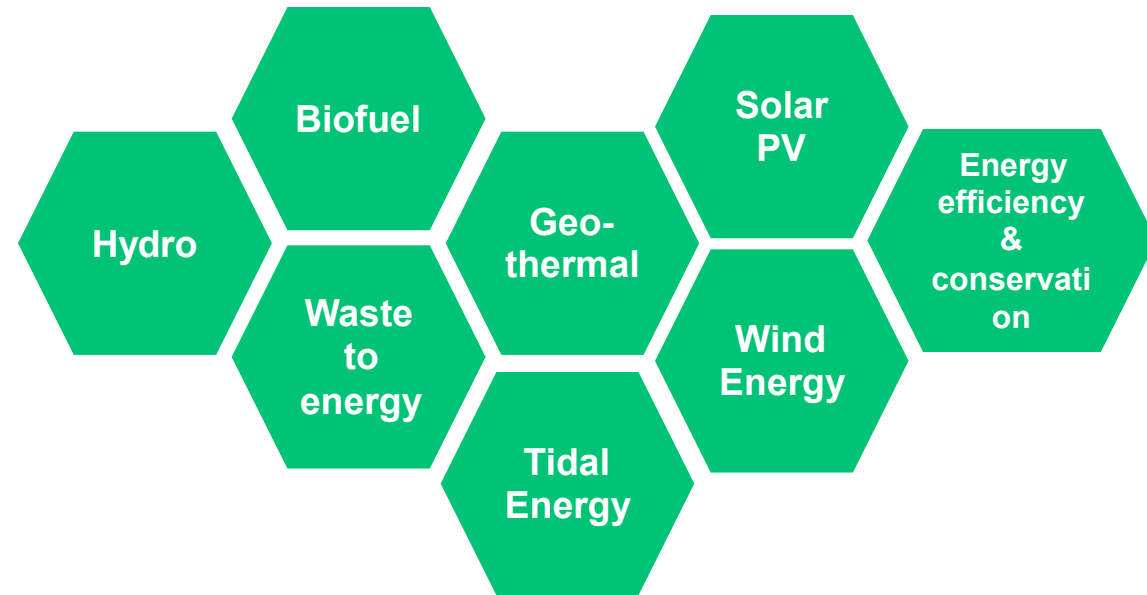
# COOPERATION NEEDED FOR RE DEVELOPMENT

## INDONESIA RENEWABLE ENERGY GOAL



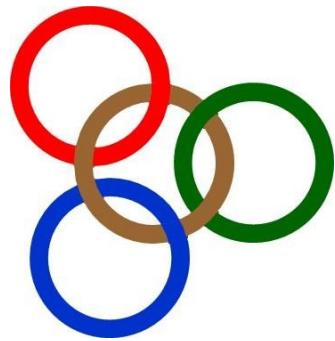
### Government efforts to achieve the goal

- One Door One Stop Permit Policy
- Feed in Tariff
- Fiscal incentive
- Tax policy
- Campaign
- R&D
- etc



## INTERNATIONAL SUPPORT

- Technology Transfer
- Lesson Learned From Best Practices
- Financing Support/Investment
- Capacity Building
- Foreign Investor
- Consultant
- Community
- University



**Thank You**  
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