

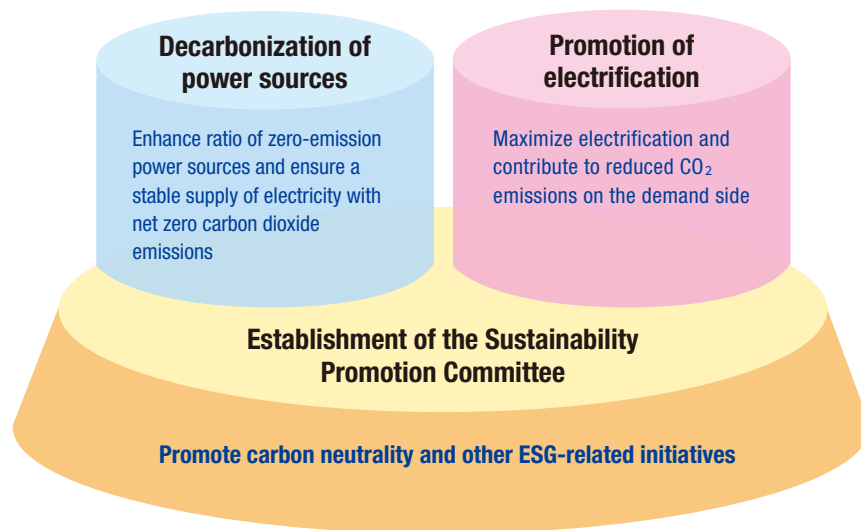
## Feature: Challenge of Reaching Carbon Neutrality by 2050

# Our aim is to be a corporate group that can lead the charge toward decarbonization in Japan from here in Kyushu

As the problem of climate change worsens, and in light of the Japanese government's 2050 Carbon Neutrality Declaration, expectations for companies to work toward decarbonization and promote ESG management are growing higher. As such, in April 2021, we declared that we would tackle the challenge of achieving carbon neutrality.

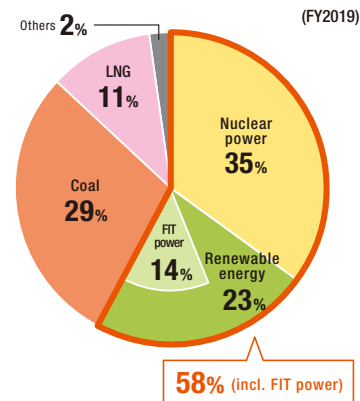
## Kyuden Group Carbon Neutral Vision 2050

- The Kyuden Group believes that the fight against global warming presents an opportunity for businesses to grow. We plan to lead Japan's decarbonization from Kyushu as a leader in low- and carbon-free projects.
- As two pillars of our efforts on the energy supply and demand sides, we continue to challenge ourselves on carbon reduction/decarbonization in power sources and promoting electrification.
- By establishing the Sustainability Promotion Committee, with the president as its chair, we are moving forward with ESG initiatives, including those aimed at carbon neutrality. **P41**

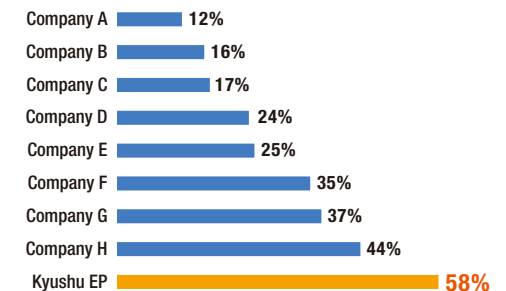


- Through the introduction and expansion of renewable energy, and safe, secure nuclear power operations, **Kyushu Electric Power (Kyushu EP)'s percentage of energy from zero-emission or FIT energy sources\* was approximately 60 percent in fiscal 2019, one of the highest in the industry.**
- In response to Japan's target of reducing greenhouse gas emissions by 46% compared to 2013 levels by 2030, **Kyushu EP reduced its CO<sub>2</sub> emissions by around 50% in FY2019.**

Kyuden Group's percentage of energy from zero-emission or FIT energy sources\* (kWh)



Company comparison for percentage of energy from zero-emission or FIT energy sources\*



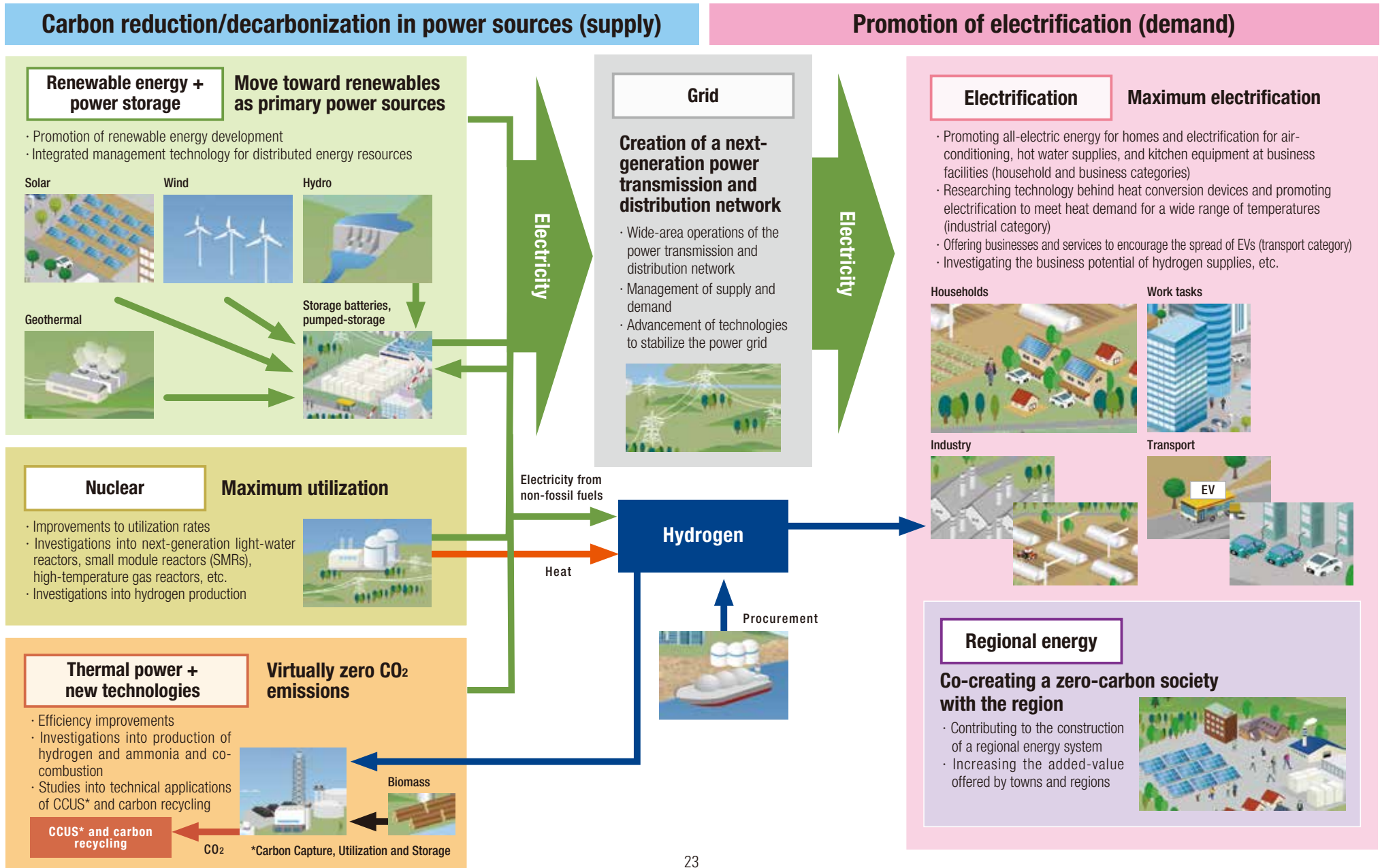
Sources: Created based on data from respective companies' websites

- Comparison with eight major domestic power companies
- Results for FY2019

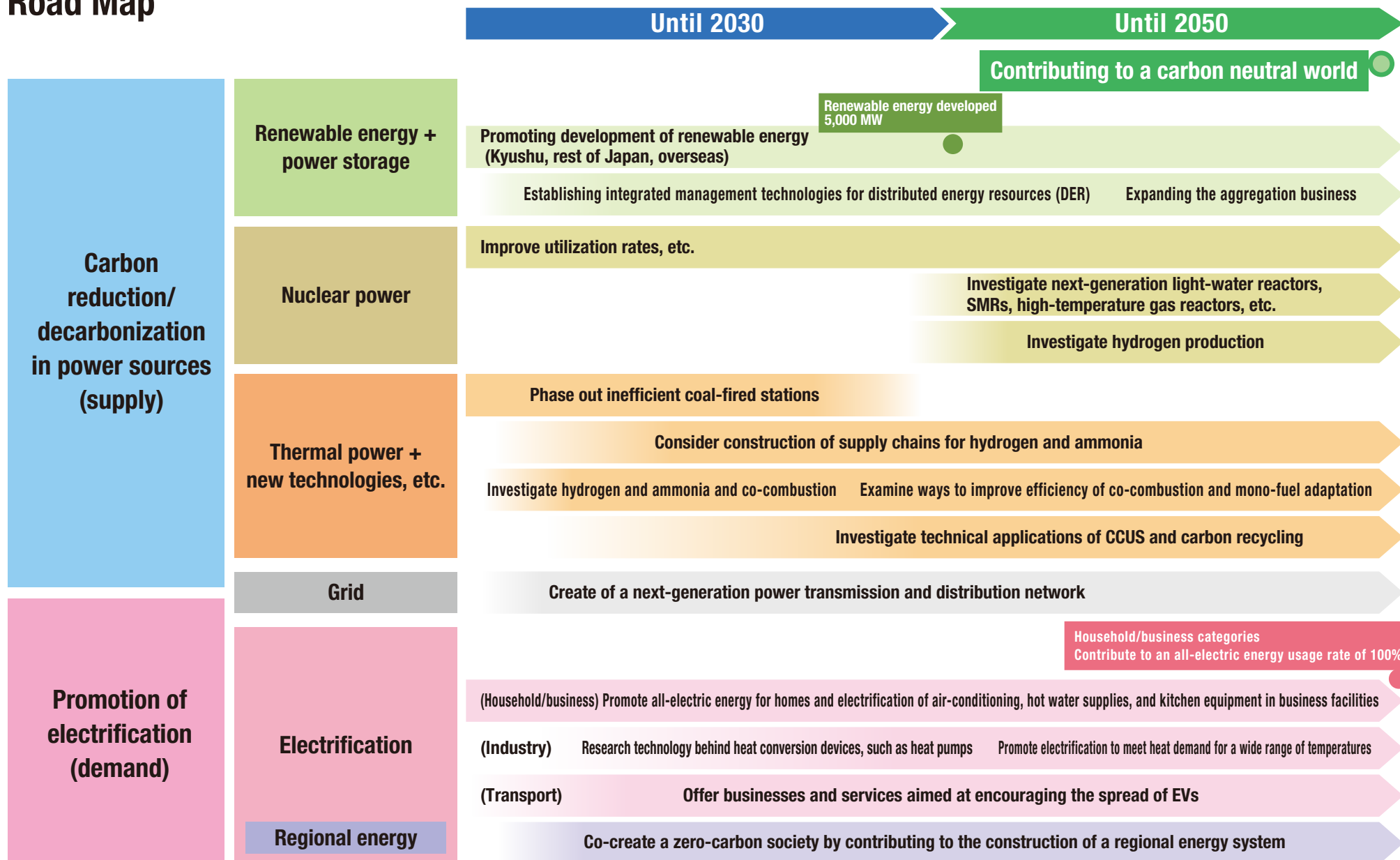
**Leader in Japan**

\*Where Non-Fossil Certificates were not used, there is no value for renewable energy or zero-CO<sub>2</sub>-emission energy sources, and so these are counted as national average CO<sub>2</sub> emissions for electricity production, including that generated from fossil fuels. For non-fossil-fuel values derived from FIT power sources, approx. 8% (the amount required for the plan by the Act on Sophisticated Methods of Energy Supply Structures) belongs to Kyushu EP. This figure is calculated by the amount of power generated by Kyushu EP and the amount procured from other companies, but does not include that supplied to remote islands.

# The Kyuden Group's Vision of Carbon Neutrality



# Road Map



Note: This road map takes into account national energy policies and other factors, and works on the assumption of innovation that will lead to revolutionary new technologies and of economic rationality. Future circumstances may necessitate major changes to these preconditions and so, where appropriate, we will review our road map. Furthermore, we will investigate CO<sub>2</sub> reduction targets for FY2030 considering the contents and other factors of the next Strategic Energy Plan.

# Direction of Our Efforts toward Carbon Neutrality

In November 2021, we formulated an Action Plan containing specific strategies for the period until 2030. For more details, see [Home > For investors > IR library > Integrated Report / Annual Report > Integrated Report FY2021](#)

## Carbon reduction/ decarbonization in power sources (supply)

We aim to achieve carbon-free energy sources as soon as possible through efforts such as further raising the percentage of our power that comes from zero-emission power sources.

### Total investments

Past 5 years  
Approx. **¥800 billion**  
FY2016–FY2020

Next 5 years  
Approx. **¥500 billion**  
FY2021–FY2025

### Major activities

- Making renewable energy our main power source [P31, 35–36](#)
- Maximizing usage of nuclear power in the future, predicated on the understanding of local residents and with safety as our highest priority [P31–32](#)
- Achieving virtually zero CO<sub>2</sub> emissions from thermal power by applying new technologies (that use hydrogen, ammonia, etc.) and by further raising the efficiency of thermal power generation [P33](#)

## Carbon reduction/decarbonization in power sources



## Creation of a next-generation power transmission and distribution network (grid)

### Major activities [P33](#)

- To unleash the full potential of Kyushu's renewable energy, we are putting in place and strengthening interconnectors and bulk systems in line with the government's master plan, as well as making full use of the capacity offered by our power transmission and distribution. Through these and other means, we are working on wide-area management for our power transmission and distribution network.
- In order to introduce high-capacity renewable energy and maintain the quality of our electric power, we will work on the advancement of supply and demand management and grid stabilization using digital technologies.

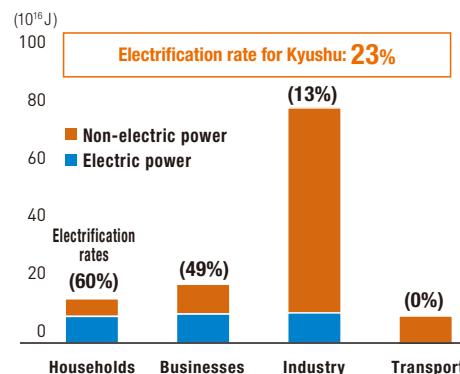
Between environmentally friendly energy and our resources, we are trying to maximize electrification, particularly in Kyushu which has so much electrification potential

### Major activities [P34](#)

- Promoting all-electric energy usage in the household category and the electrification of air-conditioning, hot water supplies, and kitchen equipment in the commercial sector
- Meeting demands for a wide range of heating needs (hot water, steam, other heating) in manufacturing processes in the industrial sector
- Expanding EV-sharing services and charging infrastructure
- Combining grid power with the region's renewable energies and storage cells, we will contribute to the construction of a regional energy system that will allow the optimal management and control of energy. In this way, we will work together with the region to create a zero-carbon society.

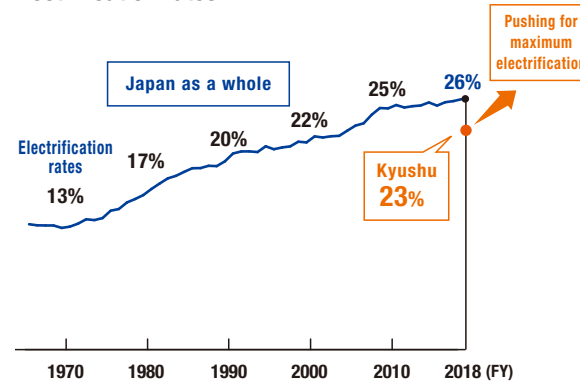
## Promotion of electrification (demand)

## Total energy consumption for Kyushu (FY2018)



Source: Calculated based on "Energy Consumption Statistics by Prefecture," Agency for Natural Resources and Energy

## Electrification rates



Source: Created based on "Comprehensive Energy Statistics of Japan" and "Energy Consumption Statistics by Prefecture," Agency for Natural Resources and Energy