JXTG Group Long-Term Vision

13th May, 2019

20th May, 2020

-with some revisions

JXTG Holdings, Inc.

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JXTG Group Philosophy

JXTG Group Philosophy

Mission

Harnessing the Earth's power for the common good and for the day-to-day life of each individual, we will contribute to the development of our communities and help to ensure a vibrant future through creation and innovation in energy, resources, and materials.

Our Five Core Values

As a member of the community

High ethical standards

Based on our core principles of integrity and fairness, we conduct all of our business activities in accordance with our high ethical standards

Health, safety and environment

We give the highest priority to health, safety and environmental initiatives, which are vital to the well-being of all living things.

Supporting day-to-day life

Focus on customers

We strive to meet the expectations and evolving needs of our valued customers and of society as a whole through the stable provision of products and services while creating new value as only we can.

For a vibrant future

Taking on challenges

Taking changes in stride, we rise to the challenge of creating new value while seeking innovative solutions for today and tomorrow.

Moving forward

Looking to the future, we continue to grow, both as individuals and as a company, through the personal and professional development of each and every employee.

Positioning of Long-Term Vision

Realizing the Group Philosophy

Release on Medium-Term Management Plan in May, 2017.

- In order to contribute to the development of society and economy and the specification of a sustainable and vigoraus future, the Croup and entering the contribute of a sustainable promote innervation and operate business additionally
- comprehensive resources
- Medium-Term Management Plan (FY2017-FY2019)

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Long-Term Vision

Our envisioned goals for 2040

- 1. Become one of the most prominent and internationally-competitive energy and materials company groups in Asia
- 2. Create value by transforming our current business structure
- 3. Contribute to the development of a low-carbon, recycling-oriented society

Medium-Term Management Plan (FY2020-FY2022)

To be developed in 2019

Purpose of Long-Term Vision

- 1. Clear statement of our envisioned goals for the future
- 2. Guiding principle for our long-term business portfolio
 - Pursue both strategic growth and cash flow maximization
- 3. Guideline for the next Medium-Term Management Plan (FY2020-FY2022)

1. Long-term global trends (summary)

General

Low-carbon, recyclingoriented society

- Ever-increasing global warming concerns(extreme weather events and disasters worldwide)
- Rapidly decreasing cost of renewable energy and battery storage
- Natural resource conservation efforts worldwide (minor metals, plastic waste, etc.)

Digital innovation

- Rapid progress of Internet society and blockchain technology
- Dramatic improvement in productivity with AI, IoT, robotics, etc.
- Electrification (shift to EV, autonomous driving, etc.)

Lifestyle changes

- Growing world economy, especially in Asia, and people seeking abundant life
- People active until 100 years old
- Congestion in urban areas and greater need for community development
- -Growth of sharing economy, preference for experiences rather than material possessions

Our business area

- Increase of non-fossil energy in global energy demand
- Global chemical demand increases, especially in Asia
- Global copper demand increases in Asian countries like India

2. Scenario in 2040



Low-carbon, recycling-oriented society



Mass introduction of renewable energy

EV, used for car sharing and energy storage, replaces gasoline and diesel cars

Distributed energy resources with energy storage

Recycling technology and infrastructure for metals and plastic in place







Various service providers help people enjoy a more comfortable life

3. Our envisioned goals for 2040

(1) Become one of the most prominent and internationally-competitive energy and materials company groups in Asia

The JXTG Group, as one of the most prominent and internationally-competitive energy and materials company groups in Asia, will contribute to the development of our communities and help to ensure a vibrant future by optimizing our value chain and efficiently providing a stable supply of products and services.

(2) Create value by transforming our current business structure

The JXTG Group will create new value by expanding our growing businesses globally, enhancing our technology based business, and establishing innovative businesses, taking opportunities arising from digital transformation and changes in social needs.

(3) Contribute to the development of a low-carbon, recycling- oriented society

The JXTG Group will contribute to the development of a low-carbon, recycling oriented society through the enhancement of environmentally conscious businesses and the pursuit of carbon neutral status in its own CO₂ emissions.

To accomplish our envisioned goals, we will transform our corporate culture through the development of more diverse and innovative human resources who can take on challenges on a global scale, and through improvement of operational quality by making the best use of ICT, while giving the highest priority to health, safety and environment, core values which are integral to our business operation.

3. Our envisioned goals for 2040 (continued)

Contribute to the realization of a sustainable society, the aim of the SDGs, through the achievement of our envisioned goals

Through our business activities (Five key items)



AFFORDABLE AND CLEAN ENERGY



INDUSTRY, INNOVATION AND INFRASTRUCTURE



SUSTAINBALE CITIES AND COMMUNITIES



RESPONSIBLE CONSUMPTION AND **PRODUCTION**



CLIMATE **ACTION**

(Unit: Thousand tons)

Through corporate 3 # TATOOLIC activities (Five key items)

Renewable energy: 150

Eco-friendly products: 1,000

Energy conservation & CO₂ EOR:1,800 2,200



GOOD HEALTH AND WELL-**BEING**



QUALITY **EDUCATION**



GENDER **EQUALITY**



DECENT WORK AND **ECONOMIC** GROWTH



Toward carbon neutral status

Carbon neutral Reduction in Group CO₂ emissions in accordance **Emissions** 28,890 with the decline in domestic demand 17,000 Reductions 17,000 10,000 Pursue cheaper renewable energy, CO₂-free hydrogen, CCS and CCUS 4,300 through technological innovation **♦** Pursue EV and other aspects of 2,950 mobility business 900

2022 2030 2040 Now

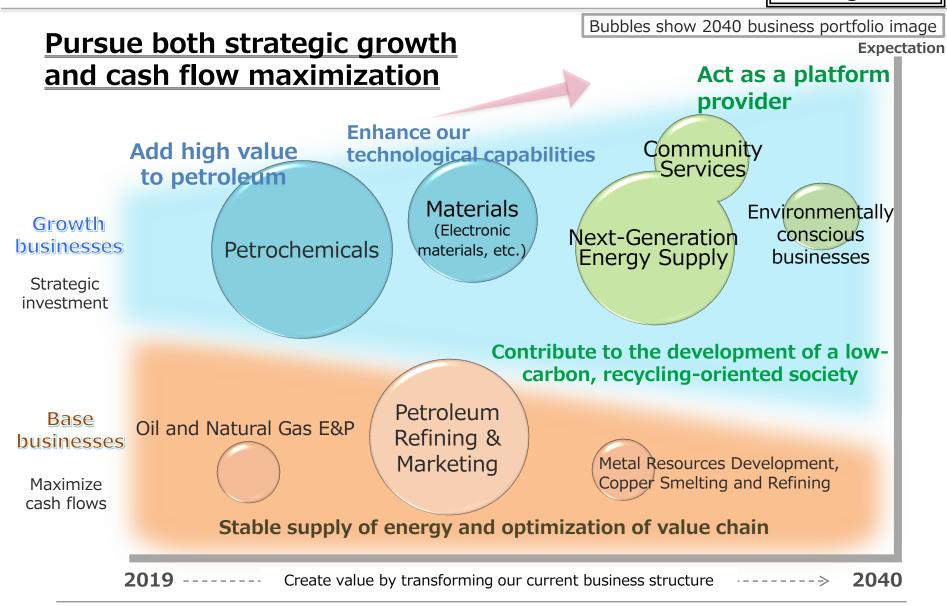
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◆ Promote energy conservation through the introduction of automated

operation of refineries and smelters

1,200

At a glance





Add high value to petroleum

Petrochemicals

- Refinery transformation to produce more chemical products
 - Introduce more advanced processing, strengthen industrial complex, etc.
- Advance into high-value-added derivatives business and expand globally

Enhance our technological capabilities

Electronic Materials

- Innovate and commercialize world-class, technology-based products
- Expand line-up of new electronic materials to contribute to IoT society

Lubricants

- Develop products and marketing network in line with global trends
 - Acquire next-generation demand arising from lubricants used for EVs and other applications underpinned by economic growth in emerging countries

High Performance Materials

• Strengthen competitiveness of products that enable sustainable growth Focus areas: Next-generation vehicles, next-generation housing and the nutrition sector



Contribute to the development of a low-carbon, recycling-oriented society

- Develop optimal portfolio of power generation in line with growth of electricity businesses in Japan and overseas
- Implement large-scale domestic and overseas renewable energy projects such as offshore wind power, geothermal power, etc.
- Create CO2-free hydrogen business, e.g. overseas hydrogen manufacturing/ shipment and hydrogen power plants

Next-Generation Energy Supply

Act as a platform provider

Create community development businesses in collaboration with local partners

Community

Services

&

- Integrate local energy businesses with community services businesses
- Develop energy service platform businesses and expand overseas
 - Supply various forms of energy, including petroleum, electricity, gas and hydrogen, with one-stop service
 - Enhance our customer base in electricity and gas businesses
 - Act as an electricity aggregator
- Transform our service station network into a platform for providing various services
 - Strengthen our relationship with customers through digital technology and produce new retail services
- Create mobility services business for car-sharing, ride-sharing, self-driving vehicle dispatch, etc.

Environmentally conscious businesses

Innovate new recycling businesses

- Recycle minor metals including LIB in EVs
- Enhance plastic recycling in collaboration with local and national governments
- Make efforts to achieve carbon recycling



Stable supply of energy and optimization of value chain

Petroleum Refining & Marketing

- Maintain profitability through drastic transformation and continue stable supply of petroleum products to customers
- Establish stable and efficient refinery operations with digital technology and energysaving technology
- Pursue greater efficiency in our value chain, from refining to marketing, by utilizing digital technology, and provide this expertise in the form of services to overseas downstream businesses

Oil and Natural Gas E&P

Metal Resources Development, Copper Smelting and Refining

- Maximize cash flows through stable and efficient operation
- Seek gas business opportunities arising from increasing demand in Asia
- Acquire core technology for more innovative technology
- Become the most competitive smelter and refiner in Asia in terms of quality, cost-effectiveness, and environmentally friendly operation