Hokkaido, the Perfect Place for Diversification of Risk

With its natural splendor, fresh, delicious food and unique history and culture, Hokkaido has a lot to offer. Its star is growing in Asia and worldwide, with a constant influx of domestic and overseas tourists. For businesses putting together a BCP, Hokkaido is also the perfect place for diversification of risk and a backup center for industrial activities, thanks to the low risk of a disaster occurring in both Hokkaido and regions such as the Tokyo metropolitan area at the same time, abundant existence of renewable energy sources, extensive land, sea and air transport infrastructure and a cool, snowy climate that can be used to support environmentally friendly business activities. These benefits have already attracted many businesses to Hokkaido. It is used as a processing and assembly site by many companies to decentralize their manufacturing bases or restructure their supplier chain, and has been adopted as an expansion site for companies in the food production industry, where it is well recognized for its abundant, high-quality ingredients that can be used for processing. Environmentally friendly data centers have also been established, as energy can be conserved to a large degree by making use of the cold air outside, and numerous companies have moved their head offices here. The merits of Hokkaido are now attracting more attention than ever, both within and outside Hokkaido. Hokkaido is full of great possibilities and potential for unlocking the future of your business. On September 6 last year, Hokkaido’s viability as a BCP site was put to the test by a more severe earthquake than ever before, which caused major disruptions to people’s lives and the region’s economic activities. We are deeply grateful for the concern and support expressed to us by so many people. Normal life and economic activities have resumed in almost all of Hokkaido, and the supply of products and services by Hokkaido-based companies is now just the same as before the earthquake. Even the most severely damaged areas are well on their way to recovery. Now that Hokkaido is back on its feet, this booklet has been created to further promote Hokkaido as a region such as the Tokyo metropolitan area at the same time in which a natural disaster such as an earthquake occurs in a region such as the Tokyo metropolitan area, the risk of it affecting Hokkaido too is low, making Hokkaido the ideal location for dispensing risk. It is our sincere hope that Hokkaido will bring major business opportunities for you.

President of the Committee for the Promotion of Investment in Hokkaido
Naomichi Suzuki, Governor of Hokkaido

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Hokkaido, the Perfect Place for Diversification of Risk

Hokkaido is less likely than other areas to be affected by typhoons and lightning, and its distance from regions such as the Tokyo metropolitan area means that if a natural disaster such as an earthquake occurs in a region such as the Tokyo metropolitan area, the risk of it affecting Hokkaido too is low, making Hokkaido the ideal location for dispensing risk.
In 2012, the Ishikari Bay New Port LNG Terminal began operations in Ishikari. The liquefied natural gas (LNG) terminal stores 180,000 kiloliters of gas. In addition to supplying LNG to Sapporo by pipeline, it is used to supply LNG to companies throughout Japan. A second LNG tank holding 200,000 kiloliters was put into operation at the LNG terminal in September 2016, a third holding 230,000 kiloliters commenced operations in 2018 and a fourth (also 230,000 kiloliters) is scheduled to be completed in 2020, setting the terminal on course to be the largest in Japan.

Power supply

Electric power facilities are currently being built in Hokkaido to ensure a steady supply of electricity in future. Unit 1 at the new thermal electric power station in Ishikari Bay New Port (569,400kW, operation commenced February 2019) and the Shin-Kitaton HVDC Link connecting Hokkaido and Honshu (300,000kW, operation commenced March 2019) are playing a key role in measures to ensure an even steadier and more reliable supply of electricity. Various measures concerning supply and demand of power in the Hokkaido area are underway to ensure that backup power of at least 3%, the minimum needed to ensure a steady supply of power, will be available in the event of an unplanned outage in large-scale power supply facilities during winter, when demand for electricity is at its peak.

Key Point 3

Diversified Transport Infrastructure

Looking at a map of the northern hemisphere, you can see that most advanced industrialized nations are concentrated in the same latitudinal “belt.” You can see that Hokkaido is actually the closest region of Japan to the rest of the world. Furthermore, the distance of the Arctic passage is around 60% of that of the southern route connecting Europe and the Far East, and is therefore attracting an increasing amount of attention for new routes.

Network of 13 Airports throughout Hokkaido

There are 13 airports throughout Hokkaido. These airports are connected by various services in addition to providing services to destinations outside Hokkaido. The large number of air routes makes it easy to travel to, from and around Hokkaido. There are 440 flights departing and arriving in Hokkaido each day. There are services to major cities outside Hokkaido from 19 airports, including services to Tokyo from 6 airports. There are also 17 regular international services to destinations such as South Korea (3 routes), China (6 routes), Taiwan (2 routes), Singapore, Thailand, Malaysia and Vietnam from airports such as New Chitose, Hakodate and Asahikawa.

Flight Times and Number of Flights from Major Hokkaido Airports to Airports Outside Hokkaido

<table>
<thead>
<tr>
<th>Route</th>
<th>First Flight</th>
<th>Last Flight</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Chitose - Narita</td>
<td>7:15</td>
<td>20:20</td>
</tr>
<tr>
<td>New Chitose - Chubu</td>
<td>13:05</td>
<td>13:45</td>
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<tr>
<td>New Chitose - Kansai</td>
<td>11:00</td>
<td>14:20</td>
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<tr>
<td>Kushiro - Kansai</td>
<td>11:05</td>
<td>11:45</td>
</tr>
<tr>
<td>New Chitose - Kansai</td>
<td>10:00</td>
<td>12:00</td>
</tr>
</tbody>
</table>

Air Services Make It Easy to Get Around Hokkaido

Hokkaido Airports to Airports Outside Hokkaido

- New Chitose Airport
- Hakodate Airport
- Kushiro Airport
- Asahikawa Airport
- Obihiro Airport
- Sapporo Airport
- Sahoro Airport
- New Chitose Airport
- Hakodate Airport
- Kushiro Airport
- Asahikawa Airport
- Obihiro Airport
- Sapporo Airport
- Sahoro Airport

LCC Services Make Hokkaido Even More Accessible

In 2012, a low-cost carrier (LCC) began providing services between Haneda, the main hub of Hokkaido. There are now 5 LCCs providing services, with lower fares than major airlines.

LCC Services

- Peach Aviation
- Jetstar Japan
- Vanilla Air
- Spring Airlines Japan
- Air Asia Japan

Up to 53 Return Flights per Day between Sapporo (New Chitose) and Tokyo (Haneda) - the Busiest Domestic Route in Japan

The route between New Chitose Airport and Haneda Airport is the busiest of all Japan’s domestic routes, with 53 return flights per day. Operating from 6 AM to 12 AM, there is an average of 3 return flights per hour. With 194,453 million passengers on domestic flights, New Chitose is Japan’s second busiest domestic airport after Haneda (As of FY 2017). A new international terminal was opened in March 2010.

Convenient Morning-to-Night Schedule

There are flights between Hokkaido and Honshu from early in the morning to late at night, making it possible to take business trips without needing to stay the night. The first flight from Haneda to New Chitose depart at 6:15am and the last flight from New Chitose to Haneda departs at 9:50pm.
Smooth Road Transportation with Little Traffic Congestion

Motorways, such as high-standard arterial highways, are constantly being developed in Hokkaido to ensure smooth road transportation. The total planned national motorway length is 1,825 km connecting major cities across southern, central, northern, and eastern Hokkaido, of which 1,165 km is already open for use as of the end of March 2019.

Hokkaido Shinkansen will Further Increase Business Opportunities

With the stretch of the Hokkaido Shinkansen between Shin-Aomori and Shin-Hakodate-Hokuto opened in March 2016, it is now possible to reach Shin-Hakodate-Hokuto from Tokyo as a short as 3 hours and 58 minutes. The stretch between Shin-Hakodate-Hokuto and Sapporo was approved in 2012 and construction began in the same year. It is expected to be opened at the end of FY 2030.

Selected to be developed and promoted as a key port

Selected as a key port on the Sea of Japan

 JR Freight Covers All Areas of Hokkaido

In freight transportation, the most environmentally friendly cargo transportation method, with around 1/70 of the CO2 emissions per transportation unit of trucks. There are 14 stations in Hokkaido handling container trains, which are connected to around 150 stations throughout Japan. The stations are serviced by around 20 trains per day bound for outside Hokkaido. Most are 12 ft container trains, but some of the freight trains can hold 31 ft containers with the same loading capacity as a large rack.
Utilization of Renewable Energy and Cool Weather

Richer In Renewable Energies than Anywhere Else In Japan

Hokkaido has an abundance of diverse energy sources, including solar power, wind power, biomass, geothermal power, and coal, and has greater potential for use of new energy sources than any other prefecture in Japan.

Wind Power Generation

Wind turbines are mainly being introduced on the Sea of Japan coast of Hokkaido for wind power generation.

Solar Power Generation

Solar power generation converts sunlight directly into electricity. It is a clean source of energy that does not produce CO2 emissions, and is expected to be key in the accomplishment of a low-carbon society. In addition to using these sources in public facilities and homes, Mega Solar sites are being developed throughout Hokkaido, making use of the prefecture’s abundant solar radiation and vast land.

Solar Power Generation Efficiency

1℃ Cooler = Up to 0.4% Greater Output!
(At 0℃ or above) (Source: Japan Photovoltaic Energy Association)

Snow and Ice Energy Supply Methods for Rooms and Warehouses

1) Cold Water Heat Exchange Cycle Method
   Melt water or antifreeze cooled with snow is circulated into the primary side of a heat exchanger with a pump, cooling the liquid circulating through the secondary side (Antifreeze, etc.)

2) Cold Air Circulation Method by Direct Heat Exchange
   Air is circulated between a snow and ice storage device for cooling the warehouse or room being cooled using a ventilator.

3) Natural Convection Method (Snow Chamber/Ice Chamber)
   Cold from a snow and ice storage device or from snow stored in the cover over the warehouse is passed naturally through the warehouse by convection.

Utilization of Clean Energy and Cool Weather

An Eco-Friendly New Energy

Snow and ice energy is a novel way of storing snow and ice collected during the winter for use in air conditioners and refrigerators in the summertime. This system is attracting attention as an eco-friendly source of energy, and has already been introduced to some parts of Hokkaido. Another technology is “Free Cooling,” which generates cold water through the direct use of cold outdoor air from cool and cold seasons (i.e., seasons other than summer) in heat exchange instead of using cooling machines. This technology saves a great deal of energy, especially in facilities that use refrigeration throughout the winter.

Such utilization of the cool weather not only reduces the cost of cooling products, equipment, and air conditioning units in buildings, but also contributes to low energy consumption, and allows increased control of CO2 emissions. It is expected that this technology will be seen increasingly more in industrial facilities such as factories.

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Controlling Air-Conditioning Energy

Hokkaido has a short summer with low humidity, and less energy is needed for cooling systems compared to Honshu. Building insulation has been improved considerably, reducing energy requirements for heating in the winter. This has led to a dramatic decrease in the energy used for cooling, particularly in manufacturing industries and data centers where a large amount of heat is generated by devices year-round.