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Why Build an Eco-
The key idea behind the Sino-Singapore Tianjin Eco-City (Tianjin Eco-City) is sustainable living. We want to meet the aspirations of today’s residents while reserving options for future generations. Beyond creating an ecologically friendly city, we want to create a vibrant economy and build a better home for our residents.

Integrated urban planning and practical technologies will be used to create a garden city where the air is fresh and clean, waste is recycled and reused, water can be drunk directly from taps, energy-efficient solutions are widely adopted, buildings are 100% green and workplaces and amenities are just a short walk away.

This city will not be a showcase of cutting edge eco-technologies or iconic buildings with “zero carbon, zero emission and zero waste” taglines. Instead, it will adopt practical and well-tested urban eco-solutions so that this sustainable city will be affordable, starting from the first batch of residents who will move into the Tianjin Eco-City in two to three years’ time. In order to be sustainable, it must be commercially viable. With a good basic eco-foundation, this city can improve its ecological footprint over time.

The development of the Tianjin Eco-City is also about the softer development of the city – the creation of a vibrant city which caters to the hopes of its residents and builds up desirable civic values to embrace sustainable living.
Why Build a Model Sustainable City

In the next 20 years, China’s urban population will grow by another 350 million – more than the US population today or building about two to three New York Cities every year. Therefore, it is an exciting opportunity to meet the aspirations of these Chinese residents with a sustainable city model.

It started with a suggestion from Singapore Senior Minister Goh Chok Tong that was readily accepted by Chinese Premier Wen Jiabao in April 2007: to develop a city in China that will be a model of sustainable development for other developing cities, resulting in the signing of a framework agreement between Singapore Prime Minister Lee Hsien Loong and Premier Wen to develop the Sino-Singapore Tianjin Eco-City in November 2007.

Leveraging China’s and Singapore’s experience and expertise in integrating urban planning and eco-development, the Tianjin Eco-City is expected to be a commercially viable city-in-a-garden. Large-scale, practical urban eco-solutions from the global marketplace will be used to create a self-sustainable metropolis that can be replicated elsewhere in China and beyond.
With a population of more than 11 million, Tianjin is China’s third largest city after Shanghai and Beijing. It is a major manufacturing hub and has one of China’s principal deepwater ports. As part of the Bohai Rim region comprising Beijing, Tianjin, Shandong, Liaoning and Hebei, this thriving northern coastal region has been earmarked as China’s next strategic economic development zone after the Yangtze River Delta and Pearl River Delta. Today, the Bohai Rim region already contributes one quarter of China’s GDP.

This strategic location has propelled the Tianjin economy to grow at a sustained annual growth rate of nearly 16% over the last decade. Today, Tianjin is ranked one of the fastest growing areas in China. As a result of its exciting growth opportunities, Tianjin will see a large migration of new residents in search of good jobs and a better home.
Why **Binhai** New Area

Strategically located in the fast growing Tianjin Binhai New Area (TBNA), the Tianjin Eco-City is well-positioned to be the focal point for the acceleration of growth in the Bohai Rim region.

The TBNA has been a growth miracle under the Central Chinese Government’s direction to grow pilot zones for comprehensive reforms with innovative policies and programmes for long-term growth and development. As the key business node for the Bohai Rim region, the TBNA is already home to more than 100 Fortune 500 companies.

Key industries currently being developed in the TBNA include advanced manufacturing, high-end technology, petrochemicals, shipping and logistics, and coastal leisure and tourism. One of the country’s most influential hotbeds for high-tech and new industries, the Tianjin Economic-Technology Development Area (TEDA), is located in the TBNA.

The TBNA has seen high double-digit growth rates in the last decade. In 2008, it grew by a remarkable rate of more than 20%. With sustained economic growth, the TBNA has been a magnet for residents from neighbouring regions and beyond in search of better jobs. The growing base of multi-national corporations also attract an influx of expatriates, creating new housing demand.

The new Tianjin Eco-City will enhance the economic attractiveness of the TBNA for investments and talent.
The Tianjin Eco-City is highly accessible from all the key regional cities and industrial districts via the major highways, railways, air routes and shipping lines.

Nearby to the west is the Tianjin Binhai International Airport. The bustling city centres of Tianjin and Beijing are 40 kilometres and 150 kilometres away respectively. With the new high-speed railway between Beijing and Tianjin, travel time between the two great cities is a mere 30 minutes. In addition, the light railway system has reduced the journey from the Tianjin city centre to the TBNA by another 30 minutes. The highways include the Beijing-Tianjin Tanggu Highway 2 to the south, the Tianjin-Hangu Expressway to the north and the new Central Boulevard and the new Coastal Highway to the east.

With its proximity and accessibility to these major gateways, the Tianjin Eco-City is an ideal location for international travel, business and living. With good connectivity, the residents have more options to live, work and play.
Exploiting its strategic location, the development imperative for a green-field Tianjin Eco-City is to build a sustainable economy and create jobs. New residents will be attracted to this new city as a result of these new economic and job opportunities.
The Tianjin Eco-City will be a modern services hub for the TBNA and the region, focusing on eco-business services as a start. As an adoption ground for large-scale eco-solutions, the Tianjin Eco-City will serve as a base for eco-companies to serve Northern China and beyond.

Over the coming decade, the Tianjin Eco-City aims to create up to 60,000 jobs. Six key urban and eco-business industry clusters will be developed to create a first-of-its-kind eco-business hub:

- Green Transport
- Green Buildings
- Clean Energy
- Clean Water
- Waste Management
- Environmental Protection

We will also target business process outsourcing (BPO) and info-communications and technology (ICT) services, as well as education and skill training services. Over time, we aim to develop other high value-added services such as financial services to serve the larger TBNA and Bohai Rim region.

The majority of job opportunities will come from the main economic vein of the Tianjin Eco-City – Eco Business Parks that will be built in the first phase of the city. The Tianjin Eco-City also aims to attract clean-tech manufacturing activities to our Eco Silicon Valley zone in the north of the city. This will be a showcase on how energy efficient, less pollutive and sustainable manufacturing facilities can be developed.
Why a Sustainable Future Starts from a Good Blueprint

The development plan for the Tianjin Eco-City site was jointly developed by the China Academy of Urban Planning and Design, the Tianjin Urban Planning and Design Institute, and the Singapore planning team led by the Urban Redevelopment Authority (URA). It incorporates the best ideas from Singapore, China and the international community to realise the shared vision of a city that is ecologically friendly, socially harmonious and economically sustainable.

The site sits on non-arable, water-scarce land with limited natural resources. The goal is to transform this 30-square-kilometre piece of land into an urban city with ample room for large-scale adoption of eco-solutions and 110,000 homes for about 350,000 people over the next two decades.
Why Our Sustainable Vision is About a Liveable City

Our business is not just being green. It is about doing what makes sense for sustainable living for residents from all walks of life.

Eco-Valley As the Spine of a Walkable Community

Meandering through the heart of the Tianjin Eco-City, the Eco-Valley will provide residents easy access to the whole of the Eco-City with walking paths, cycling tracks and public transportation networks. This will be a first step towards changing the mindset of its residents, and move the city closer to being a walkable community.

<table>
<thead>
<tr>
<th>Local plant index</th>
<th>≥ 0.7 [China’s National Ecological Garden City Standard is set as 0.7]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air quality</td>
<td>Meet NAAQG II 85% of the year [Above the benchmark NAAQG II of 88% of the year for major cities] Meet NAAQG I 50% of the year</td>
</tr>
</tbody>
</table>

NAAQG – China’s National Ambient Air Quality Grade: a measurement of number of days per year with satisfactory ambient air quality.
Green Buildings
As the Basic Eco-Foundation

All buildings in the Tianjin Eco-City will conform to the national green building standards which make it a market leader in sustainable, energy- and resource-efficient green buildings in China.

Green buildings 100% [20–30% more efficient than standard homes]

Green Transportation
As Second Nature

Green transportation ensures smaller carbon footprints at the individual and family levels. With the use of light rail transportation, smart road designs, seamless public transportation and well-connected footpaths alongside roads, green transportation will be second nature to residents. The use of green vehicles will be promoted.

- Carbon emission per unit GDP: 150 tonne-C/ US$1 million [close to US standards]
- Proportion of green trips: ≥ 90% by 2020 [in New York and Singapore, it is ≥ 60%]

*“Green trips” refer to the use of public transport, walking and cycling for travel.*
A Haven of Practical Eco-Solutions

**Clean energy sources** will be used in addition to traditional energy supply. Practical energy solutions such as solar water heaters and geothermal heating systems will be adopted. Energy efficient solutions such as energy saving light bulbs will also be promoted.

**Waste management and recycling** aim to reduce the amount of waste produced and to efficiently collect and recycle it. A pneumatic waste collection system will be implemented on a city-wide basis. The waste disposal and treatment processes can also create energy regeneration from unrecyclable waste.

**Clean water** will be achieved with waste water recycling and advanced treatment technologies, enabling water to be drunk directly from the tap.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per capita domestic waste generation</td>
<td>≤ 0.8 kilograms/day [In Japan, it is less than 1.1 kilograms/day]</td>
</tr>
<tr>
<td>Recycling rate</td>
<td>≥ 60% [Singapore achieved 51% in 2006]</td>
</tr>
<tr>
<td>Water usage</td>
<td>≥ 50% from non-traditional sources</td>
</tr>
<tr>
<td>Household water consumption</td>
<td>≤ 120 litres/household</td>
</tr>
<tr>
<td>Renewable energy</td>
<td>≥ 20% of total energy consumption</td>
</tr>
</tbody>
</table>
Incubator of New Eco-Technologies

The Tianjin Eco-City will become a hub for research and development for environmental technologies such as waste water recycling and renewable energy.

R&D personnel/10,000 labour force ≥ 50 man-years [In EU, it is currently 55]

Clean Waterbodies & Wetlands As Rivers of Life

The Tianjin Eco-City will be built around a central core of conserved ecological wetlands and rehabilitated waterbodies. This will facilitate the promotion of a host of recreational activities along the city's waterbodies and wetlands.

Natural wetlands Zero loss [China's National Standard: 50%]

Waterbodies Meet Grade IV GB 3838-2002 [An environmental indicator for the quality of water based on usage]

A Liveable City

Residential and business park developments will be located close to the city's commercial centres so that residents can live and work nearby. They will be interspersed with well-designed open spaces and recreational amenities to facilitate social interaction. There will also be quality educational and healthcare facilities such as international schools and clinics to cater to residents' needs. Softer city development such as arts and culture, sports, leisure, heritage and nightlife will take centre stage in city planning so that residents can learn and play.

Public green space ≥ 12 m²/capita [Singapore's standard is 8 m²/capita]

Free recreational facilities 100% within 500 metres [Liveable City Scientific Evaluation Criteria is 100%]
Why **Break Ground** in the Eco-City Now

We have launched the early stage of development less than two years after the idea was first mooted because we believe that city development is a long-term commitment. Instead of chasing for impossible outcomes in the short term, we will adopt a flexible and adaptive approach throughout the whole development journey.
In September 2008, Singapore’s Senior Minister Goh Chok Tong and Chinese Premier Wen Jiabao took part in the ground breaking ceremony, officially commencing work in the Tianjin Eco-City.

The Tianjin Eco-City takes its first roots in the Start-Up Area (SUA). This 4-square-kilometre site will be home to 26,500 households and the first batch of residents will move in around early 2011 with the following key developments:

**The Spine of the Eco-City**
The Eco-Valley, with the light railway system beneath it, is a 50-metre-wide green spine and will feature prominently in the SUA and, eventually, the entire Eco-City.

**The Buzz of the SUA**
The sub-centre will be the early focal point of the SUA. It will be the key mixed-use and transportation hub for the SUA. The first light railway station will be housed here, along with a mix of retail, food and beverage, entertainment, commercial and communal facilities. International schools and medical clinics will also be set up in the SUA to create the right conditions for the city to attract talent.

**The Spirit of the Eco-City**
Public housing in the SUA will be the first of its kind in China. Based on the Singapore public housing model, it will focus on energy efficiency and create a living environment that fosters community spirit and social harmony.

**The Soul of SUA**
The soul of the SUA will be focused around Qing Tuo Zi Village, an old fishing village that will be given a facelift and transformed into a new retail, food and beverage and wellness destination.
Why the Eco-City is a Land of Opportunity

With China rising as a world economic power and the growing urgency for sustainable business and living practices, the Tianjin Eco-City is the perfect place to be part of a new paradigm of sustainable development. Our development philosophy is to bring in quality partners from around the world to learn from the best, develop a global city with practical ideas and create quality jobs to attract new residents.

Perfectly Placed
The Tianjin Eco-City is developing against a backdrop of exciting economic development, not only because of China’s potential as a whole, but also because of the Eco-City’s location within the fast-growing Tianjin Binhai New Area and the thriving Bohai Rim region.

A Leader in Urban and Eco-Solutions
Amidst the rising need for sustainable solutions, the Tianjin Eco-City is set to become an important centre in the development of sustainable eco-solutions and technologies.

Large Talent Pool
The population that will be drawn to the Tianjin Eco-City will comprise largely of skilled workers and those with a mind to contribute to sustainable development. This concentration of skilled and motivated talent will provide a highly productive workforce, as well as a ready pool of consumers.
Potential Investors
The special “Eco-City Industries Fund” has been set up by the Chinese government, and will benefit eco-companies within the Tianjin Eco-City engaging in high-tech research and development, service outsourcing, creative industries, finance, business services, MICE, tourism and logistics. Other incentives such as tax waivers and subsidies, rental subsidies, human resource incentives and personal income tax will benefit both businesses and individuals alike. Intellectual property grants, plus funds and grants for research and development will give a boost to the high-technology industry clusters in the Eco-City.

Potential Developers
The Tianjin Eco-City seeks to forge close partnerships with quality developers by offering various incentives and a one-stop approval process. Developers who invest early will benefit from even more incentives like preferential land pricing. Eco-development incentives will reward developers who go the extra mile and pursue good eco-development over and beyond the entry level green building standards. There will also be assistance provided to green building developers, such as worker training, sourcing for green materials and green technologies.

Attractive Incentives
The importance of anchoring good companies in the Tianjin Eco-City is reflected in the preferential policies offered in the city – they are among the most competitive and comprehensive in the region. As part of the RMB4 trillion stimulus package, the Chinese government has shown its glowing support, announcing its intention to invest approximately RMB16.5 billion ($3.63 billion) over the next three years in the construction of 149 priority projects to push the development of the Tianjin Eco-City. The Tianjin Eco-City is your land of opportunity.
The Sino-Singapore Tianjin Eco-City will be developed by the Sino-Singapore Tianjin Eco-City Investment and Development Co., Ltd (SSTEC).

SSTEC engages in the long-term investment, design, development and promotion of ecologically, commercially and socially sustainable lifestyles for people and communities. By bringing together talent from both China and Singapore, the company aims to catalyse large-scale urban solutions as a model for other cities. A ‘future-ready’ company, its management embraces the core values of sustainable development, creativity and innovation in order to shape mindsets, lifestyles and values for a more sustainable future.

The company is a 50/50 joint venture formed by a Singapore Consortium company, Singapore Tianjin Eco-City Investment Holdings Pte. Ltd (STEC), and a Chinese Consortium company, Tianjin Eco-City Investment and Development Co., Ltd (TEC).

The Keppel Group is the majority shareholder of STEC. One of Singapore’s leading corporations with global presence in 34 countries, Keppel is expected to maintain an initial equity interest of around 50% in STEC, and the remaining interests will be held by international investors.

Tianjin TEDA Investment Holding Co., Ltd, established in 2001, is the leading partner in TEC and is responsible for the fast growth of the Tianjin Economic-Technological Development Area. Other partners include China Development Bank, Tianjin Real Estate Development and Management Group Ltd, Tianjin Tanggu Urban Construction Investment Company, Tianjin Hanbin Investment Co. Ltd and Tsinlien Group (Tianjin) Assets Management Co., Ltd.