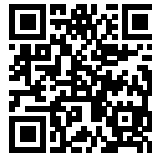




## SHENZHEN ENERGY HQ: A SUSTAINABLE LANDMARK

*Posted on February 6, 2019 by martabuges*



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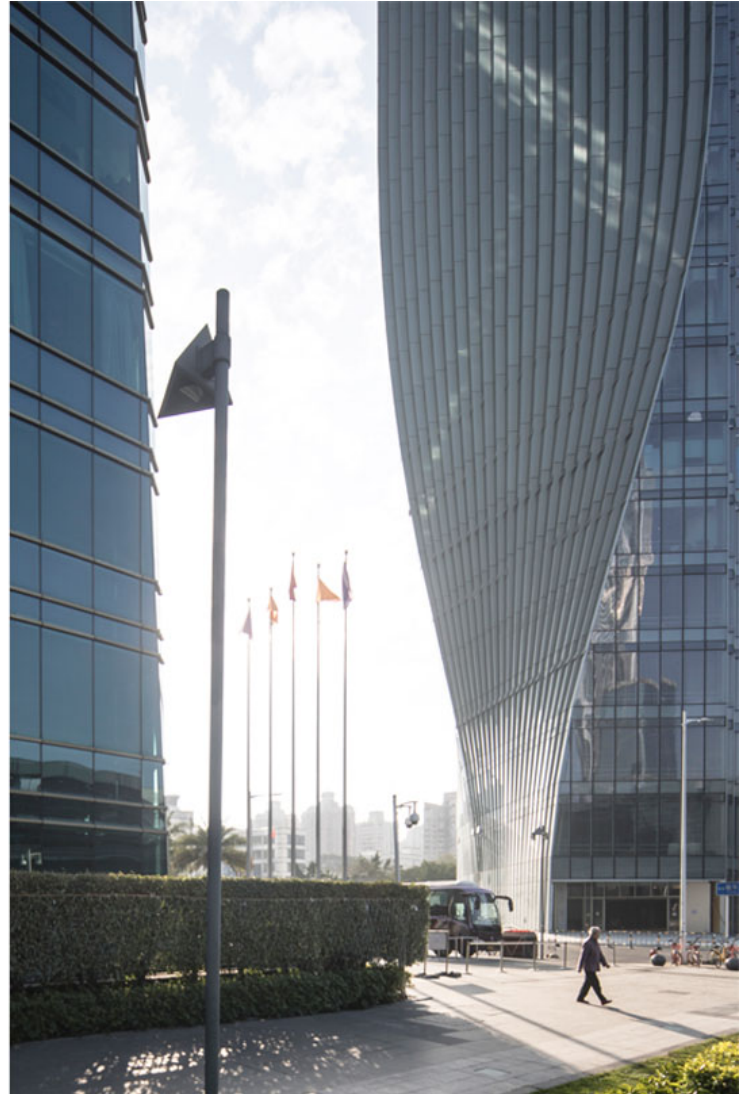
The 96,000m<sup>2</sup> office development for the state-owned Shenzhen Energy Company is designed to look and feel at home in the cultural, political and business center of Shenzhen, while standing out as a new social and sustainable landmark at the main axis of the city.



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The volume and height of the new headquarters for Shenzhen Energy Company was predetermined by the urban masterplan for the central area. The development consists of two towers rising 220m to the north and 120m to the south, linked together at the feet by a 34m podium housing the main lobbies, a conference center, cafeteria and exhibition space. Together with the neighboring towers, the development forms a continuous curved skyline marking the center of Shenzhen.

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## **TOWER VOLUME**

The building site is located at the south gate of the political, cultural and business centre of Shenzhen, and north-east of the crossing of Binhai and Jintian Road. A podium and two towers rising 220- and 120-meters tall define the maximum building envelope and align with the city's planned height profile.

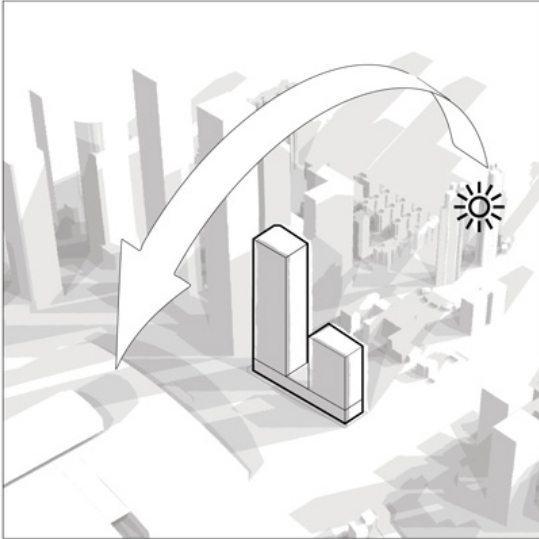


## **GREEN ROOFTOPS**

Green areas for recreation surround the site in the dense forest of towers. By utilizing all three roofs of the building volume as green parks, the building site can stay green even when fully developed.

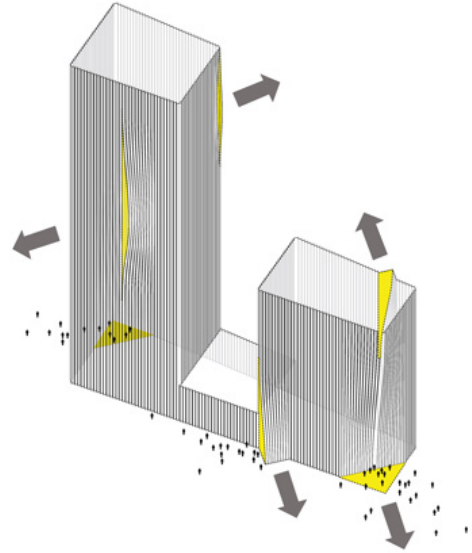
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## SUNLIGHT

The site is located directly facing east and west. During the mornings and evenings, there is a low sun on the east and west facades. By mid-day, the sun is at a steep angle on the smaller south facing facades.



## ENTRANCES AND VIEWS

From street level, a series of walls are pulled open for visitors to enter the commercial spaces while professionals enter from the front plaza into the daylight-filled lobby. Within the protruded areas of the building, the façade is stretched out—two smooth deformations create large spaces for extra good views on each floor, meeting rooms, executive clubs and staff facilities.

BIG developed an undulating building envelope which creates a rippled skin around both towers and breaks away from the traditional glass curtain wall. By folding parts of the envelope that would reduce solar loads and glare, a façade with closed and open parts oscillate between transparency to one side and opacity to the other. The closed parts provide high-insulation while blocking direct sunlight and providing views out. As a result, the towers appear as a classical shape with an organic pattern from a distance and as an elegant pleated structure from close-up.

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The sinuous direction of the façade corresponds to the solar orientation: it maximizes north-facing opening for natural light and views, while minimizing exposure on the sunny sides. This sustainable facade system reduces the overall energy consumption of the building without any moving parts or complicated technology.

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From the street level, a series of walls are pulled open for visitors to enter the commercial spaces from the north and south end of the buildings, while professionals enter from the front plaza into the daylight-filled lobby. Once inside, the linearity of the building façade continues horizontally: the pixel landscape of the stone planter boxes is in the same dimensions and arranged in the same pattern as the ripples of the building envelope.

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The offices for Shenzhen Energy Company are placed on the highest floors for employees to enjoy views to the city, while the remaining floors are rentable office space. Within the protruded areas of the building, the façade is stretched out—two smooth deformations create large spaces for extra good views on each floor, meeting rooms, executive clubs and staff facilities.

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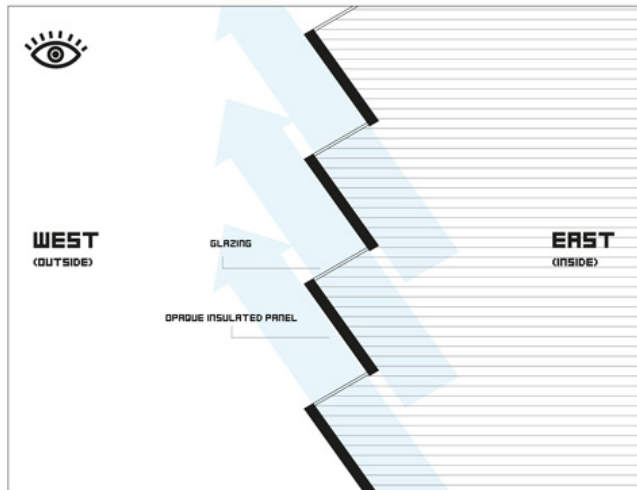


The folded wall provides a free view through clear glass in one direction and creates a condition with plenty of diffused daylight by reflecting the direct sun between the interior panels. Even when the sun comes directly from the east or west, the main part of the solar rays are reflected off of the glass due to the flat angle of the windows.

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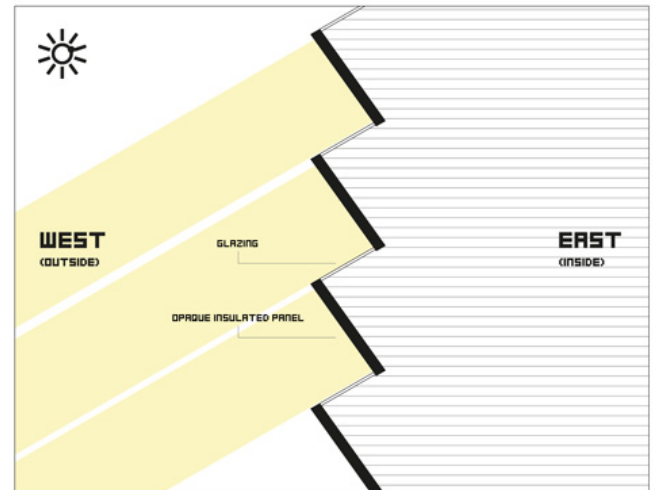
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## FOLDED FAÇADE

The folded wall provides a free view through clear glass in one direction, and creates a condition with plenty of diffused daylight by reflecting the direct sun between the interior panels. Even when the sun comes directly from the east or west, the majority of the solar rays are reflected off of the glass due to the flat angle of the windows.



## FOLDED FAÇADE

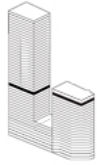
By folding parts of the envelope that would reduce solar loads and glare, a façade with closed and open parts oscillate between transparency to one side and opacity to the other. The closed parts provide high insulation while blocking direct sunlight and allowing views out.

As the sun sets, the changing transparency and the curved lines of the façade create an almost wood-like texture or a scene of vertical terraced hills. The slits that open between the curtain wall to reveal special spaces such as boardrooms, executive offices and breakout areas, lend the building a distinct character from different parts of the city.

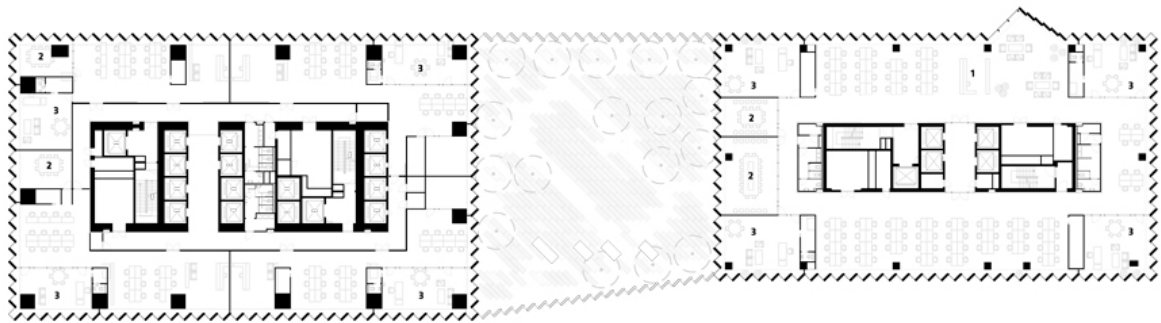
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**LEVEL 19**  
Offices  
办公室



- 1 RECEPTION 招待处
- 2 CONFERENCE ROOM 会议厅
- 3 EXECUTIVE OFFICE 行政办公室

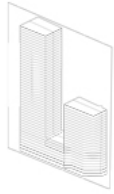
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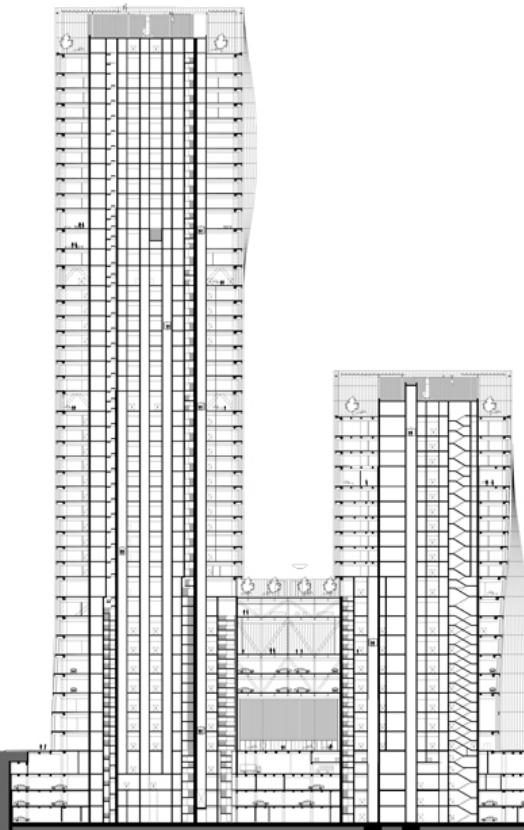
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SECTION A  
剖面图 A



- LEVEL 42 ROOFTOP TERRACE 顶层阳台
- LEVEL 41 STAFF CLUB 公共活动中心
- LEVEL 32 - 40 SHENZHEN ENERGY COMPANY HQ  
深圳能源集团股份有限公司总部
- LEVEL 30 - 31 SKY LOBBY 空中大堂
- LEVEL 29 ARCHIVE 档案室
- LEVEL 28 REFUGE 避难层
- LEVEL 19 - 27 OFFICE 办公室
- LEVEL 18 REFUGE 避难层
- LEVEL 10 - 17 OFFICE 办公室
- LEVEL 1 - 9 PODIUM 裙楼
- LEVEL -4 - 0 PARKING 停车场

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