



BYD SKYRAIL PROJECT IN BRAZIL

BYD

Business Plan in Brazil

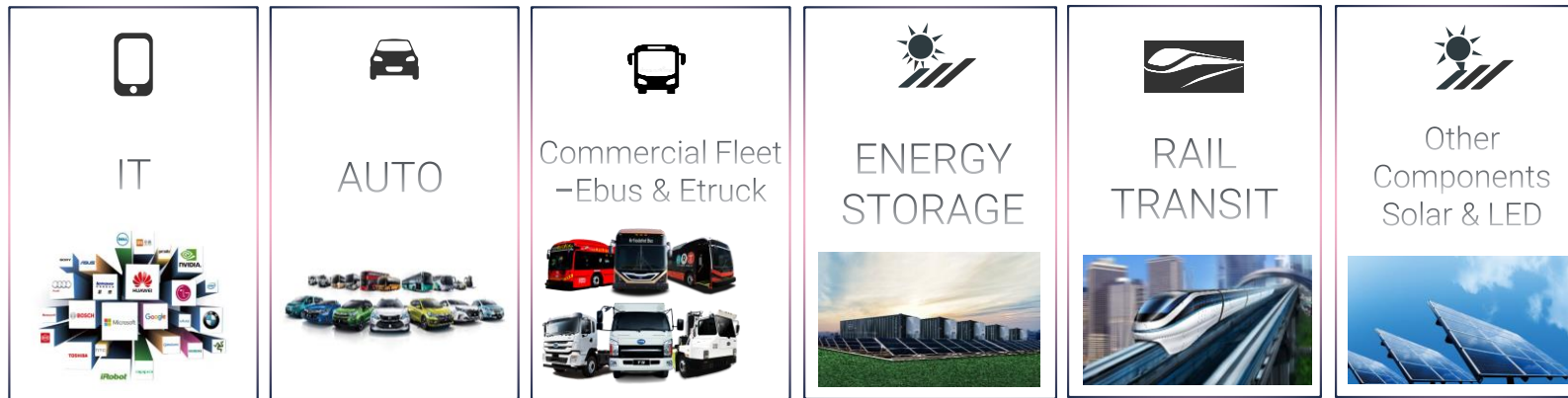
- ◆ BYD GROUP
 - ◆ BYD IN BRAZIL
 - ◆ SKYRAIL
-



BYD Group



BYD AT A GLANCE



- Over **220,000** employees and **30** industrial parks worldwide.
- 2018 estimated Revenue: USD **22** billion.
- World's largest battery manufacturer.
- World's largest battery storage company.
- World's leading electric vehicles manufacturer
- **A Clean Energy Pioneer:** solar power, utility-scale battery storage & electrified transportation.
- **A Public Transport Total Solution Provider:** Skyrail, E-bus, E-taxi, E-trucks etc.

Milestones

- Feb **1995**, BYD was **founded** in Shenzhen, China, manufacturing rechargeable Ni-Cd batteries and micro electronics.
- **2002**, BYD became listed on the Hong Kong Stock Exchange-Stock.
- **2003**, BYD entered the automobile industry by acquiring a 77% aggregate equity interest in the Xi ' an Qin Chuan Automobile Company Limited.
- **2005**, The F3, BYD's first independently branded model, hit the market.
- **2009**, BYD acquires a Bus Factory, entering the new energy bus industry.
- In **2010**, the BYD e6, the world's first pure electric taxis hit the streets and BYD K9 pure electric bus rolled off production, and the BYD Electrified Public Transportation Solution was released.
- In **2011**, BYD became listed on the Shenzhen Stock Exchange.
- In **2015**, "7+4 Full Market EV Strategy" was released. BYD sold the most electric vehicle in the world.
- In **2016**, ventured into the rail transit sector.
- In **2017**, launched the 1st Commercial monorail train in Yinchuan, China.

Milestones



2008, Mid American Energy Holdings Company (Warren Buffet's Company), subscribed for 10% of BYD shares, which helped BYD to stand in the spotlight of the world and promoted its new energy business. By the end of 2017, his company held 49.18% of the H share, which is around 16.5% of the total shares.

Financial Highlights

	For the year ended 31 December				
	2017	2016	2015	2014	2013
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Revenue	102,650,614	100,207,703	77,611,985	55,366,384	49,767,887
Gross profit	17,935,074	19,018,263	11,859,244	7,623,458	6,516,314
Gross profit margin (%)	17	19	15	14	13
Profit attributable to equity holders of the parent	4,066,478	5,052,154	2,823,441	433,525	553,059
Net profit margin (%)	4.0	5.0	3.6	0.8	1

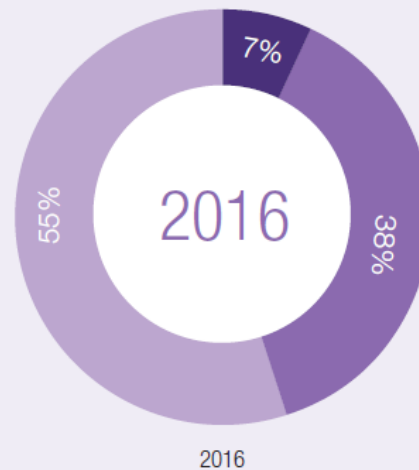
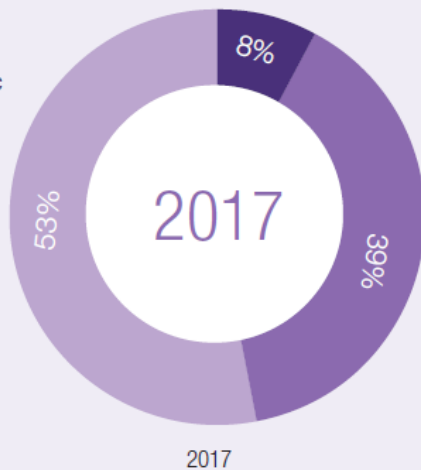
	As at 31 December				
	2017	2016	2015	2014	2013
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Net assets (less minority interests)	55,004,194	51,255,929	32,294,404	25,365,597	21,709,764
Total assets	178,099,430	145,070,778	115,485,755	94,008,855	78,014,834
Gearing ratio (%) (Note)	93	74	109	103	94
Current ratio (times)	0.98	1.00	0.82	0.77	0.69
Accounts and bills receivables turnover (days)	175	132	116	118	86
Inventory turnover (days)	81	76	73	71	68

Note: Gearing ratio = Total borrowings net of cash and cash equivalents/net assets (less minority interests)

Financial Highlights

Revenue Breakdown by Product Categories

- Rechargeable Battery and Photovoltaic
- Handset components and Assembly Services
- Automobiles and related products



7+4 Full Market EV Strategy



This strategy was launched to provide a full solution for the EV Market, to have electricification on the 7 traditional markets, plus 4 specialized markets – Bus, car, truck, tugs, tractors, forklifts, etc.

7

Traditional Market



Urban Bus



Coach Bus



Taxi



Passenger



Logistic



Construction



Sanitation

4

Specialized Market



Warehouse



Airport

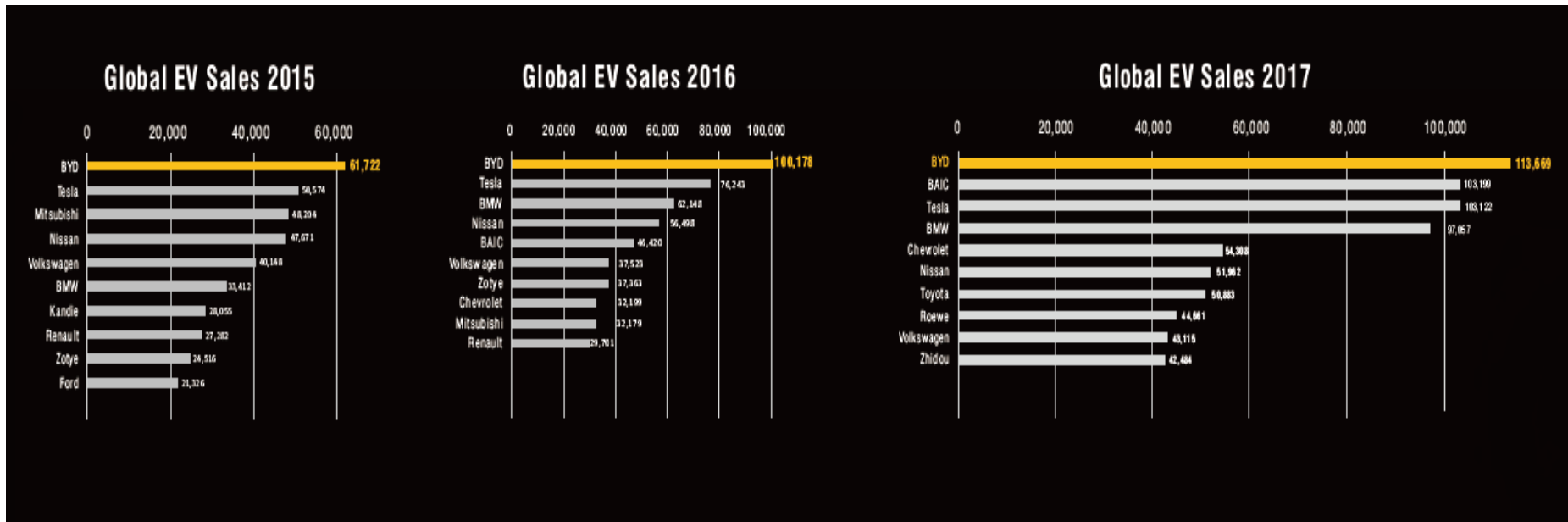


Harbor



Mining

7+4 Full Market EV Strategy – Leader on sales



BYD new energy vehicles won the worldwide champion again in 2017 and ranked first in global sales volume for three consecutive years, further consolidating the industry position and brand influence of the Group.

7+4 Full Market EV Strategy

- Largest e-taxi fleet manufacturer

Taiyuan has already replaced over 8,000 gasoline taxis and is on track to become the 1st City in the World to Fully Electrify their Taxi Fleet



Since May 2010, 850 BYD e6 cars have been put into operation in Shenzhen to form the most stable taxi fleet with the longest accumulated driving range around the world.



7+4 Full Market EV Strategy

- Urban Delivery Vehicles were approved by the WORLD'S LEADING logistics companies



After completing extremely rigorous testing by UPS & DHL, BYD began delivering all-new, battery-electric vehicles in 2016.

7+4 Full Market EV Strategy – Leader on sales

- BYD new energy In the field of pure electric buses, achieved well sales performances amid the broader market downturn, with the market share increased to 14.73% in 2017.
- Up to now, BYD's pure electric public transportation products have been put into operation in numerous cities across the country including Shenzhen, Guangzhou, Tianjin, Dalian, Changsha, Wuhan, Xi'an, Nanjing, Hangzhou and Shantou.



7+4 Full Market EV Strategy

- In overseas markets, the Group successively received orders from all around the world, including London in Britain, Los Angeles in the U.S., Sydney Airport in Australia, Novara in Italy and Okinawa in Japan.

London, biggest ebus fleet in Europe



Okinawa, Japan



New York, USA



Malaysia, 1st elevated BRT in the world



Sydney, Australia



Amsterdam International Airport



7+4 Full Market EV Strategy

- In the first half of 2018, the Group took the lead in gaining massive orders for pure electric dump trucks in the world. A deal of 500 BYD pure electric dump trucks was signed in Pingshan, Shenzhen.



Photovoltaic Power Plants - ESS

- In 2017, rechargeable batteries and photovoltaic business recorded revenue of approximately RMB8,442



Photovoltaic Power Plants



Brazil | Floresta | The largest Double Glass Module Project
250MW



Australia
75MW + 10.6MW



Honduras
59.6MW + 53MW



108MW Solar Farm
Idaho

USA. | Utah
California
Idaho | BYD'S Largest Single Ground Solar Plant
108MW



South Africa | 86MW + 70MW + 7MW

Shanxi, CN
150MW



Energy Storage Systems

Capacidade: 2.5MW / 5MWh
Localização: San Diego, CA



Capacidade: 19.8MW / 7.865MWh
Localização: Chicago, IL



Capacidade: 250kW/500kWh ESS
Localização: Doha, Qatar



Capacidade: 31.5MW / 12.06MWh
Localização: Chicago, IL



Capacidade: 4MW / 2.6MWh
Localização: Ontario, Canada



Capacidade: 4MW / 2.6MWh
Localização: Ohio, EUA



Capacidade: 2MW/4MWh ESS
Localização: San Francisco, EUA



Capacidade: 1MW/1MWh ESS
Localização: Itália



Capacidade: 2MW / 5.32 MWh
Localização: Tibet, China



Capacidade: 200kW / 1.2MWh
Localização: Johannesburg, África do sul



Rail Transit – Monorail

- The first commercially operated Skyrail line with proprietary intellectual property rights also completed construction and was delivered in September 2017, marking the official commercial operation stage of BYD's Skyrail business. Yinchuan Line.



NEW ENERGY

PIONEER ON PROVIDE A RENEWABLE ENERGY ECOSYSTEM GENERATION, STORAGE AND DISTRIBUTION



RECOGNITION

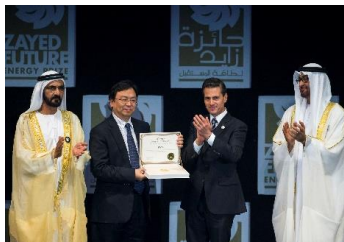
UN
Powering the Future
Special Recognition



Bloomberg
Top 10 Most Innovative
Companies



Zayed Future Energy Prize
Lifetime Achievement Award
Large Corporation Award (UN)



Fortune
Top 15 Companies
Change the World



Business Week
The Stars of Asia





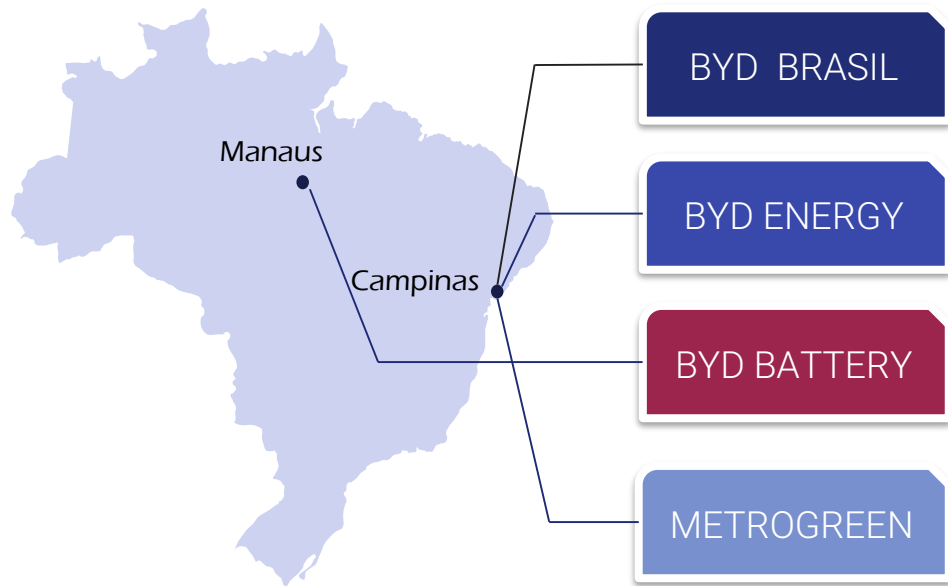
BYD Brazil



BYD IN BRAZIL

- 2012: Representative Office in São Paulo.
- 2014: BYD announces its coming to Campinas.
- 2015: Launched the Electric Bus Unit.
 - R&D and Prototype Center/ Development of local suppliers.
- 2016: Assembly of chassis and rechargeable battery packs.
- 2017: Inauguration of the second unit in Campinas: Assembly of photovoltaic solar panels.
- 2018: Battery assembly plant in Manaus for storage and electric mobility systems.
 - 1st SkyRail in Salvador, BA.

BYD IN BRAZIL



BYD BRASIL

E-Bus Chassis factory,
capacity 720 unit/ year

BYD ENERGY

Solar module factory,
capacity 250 MW/ year

BYD BATTERY

Battery factory in Manaus,
capacity 150 MWH/ year*

METROGREEN

E-vehicle resale; Skyrail
project development

460 employees
6 Years in the market

*Under Construction



BYD IN BRAZIL - Offices



Photovoltaic Panels Factory



eBus Chassis Factory



Brazil Headquarters in Campinas



Branch Office



After Sales Advanced Post

BYD do Brasil - Bus

- BYD assemble the chassis for the e-buses in the Campinas facility and has a partnership with Marcolopo, Caio and Volare for the body manufacturing of its different models.
- Currently has buses operation on:
 - Campinas
 - São Paulo
 - Brasília
 - Volta Redonda
 - Bauru
 - Santos
 - Uberlandia
 - Rio de Janeiro
 - Etc.



BYD do Brasil - Forklift

- BYD has a business unit for 100% electric forklifts, tractors and tugs for sale in the Brazilian market and has 350 units operating for important players



115 units operating in DHL

Classe I



Classe II



Classe III



Rebocadores



BYD do Brasil - Car

- Two pure electric cars model for taxi fleet, car sharing programs and city halls: e5 and e6. And 100% electric urban mobility: T3.



Recently won a bidding in São José dos Campos City hall of 30 cars for the police:



Full BYD solution: e-car + solar energy + charger infrastructure in Aldo (Maringá- PR)



BYD do Brasil – Commercial Vehicles

- This Business Units includes green tugs and port and airport business and also pure electric trucks for sanitation and mining.
- Green Tug: main customer is Dnata with 24 units
- Sanitation Trucks: main customer is Corpus for 200 units, the biggest fleet in the world.



BYD Energy

- BYD has delivered over 300MW of photovoltaic panels produced locally for two big projects in Brazil for centralized distribution: Floresta and Paracatu (under construction) . And now has expanded its production line for GD market.



Customers In Brazil



Skyrail

SKYRAIL

SKYRAIL SOLVES MAJOR URBAN CHALLENGES: TRAFFIC CONGESTION

- ✓ Traffic delays
 - Business and consumer financial costs
- ✓ Exhaust Pollution
 - Health impacts
- ✓ Noise pollution
- ✓ Energy consumption
- ✓ Traffic safety impacts
- ✓ Urban Adaptability: 10% Gradeability and 45m min. turning radius

Low
Constructio
n Costs

Minimum
Land
Occupation

Shorter
Construction
Timelines

Intelligent
Driving &
Monitoring

Excellent
Topographic
Adaptability

Easy City
Integration

SKYRAIL

BYD SKYRAIL PROJECTS

1,000 ENGINEERS

5 YEARS OF R&D DEVELOPMENT

\$1 BILLION (USD) TECHNOLOGY INVESTMENT

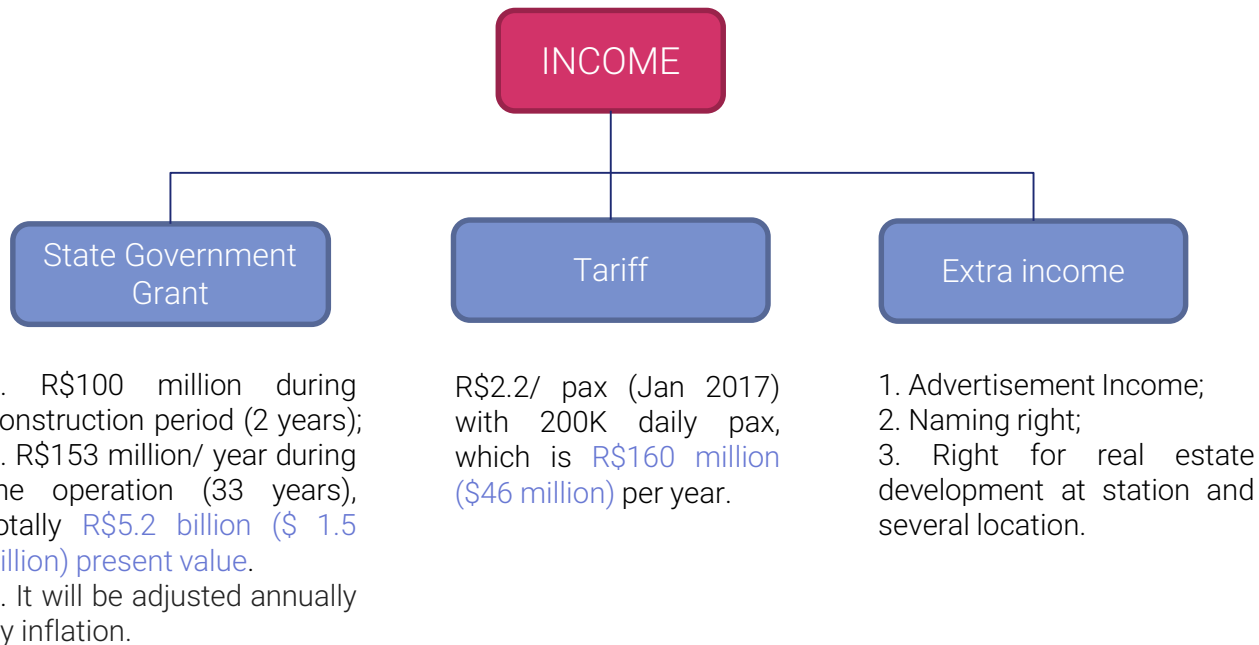
- Contracted with over **20** cities worldwide including Shenzhen, Yinchuan, Guilin and Jining, China; Iloilo, Philippines; Alexandria, Egypt; Casablanca, Morocco; and Phnom Penh, Cambodia;
- Strategic cooperation agreements with China's biggest real estate developers - Vanke & Country Garden



Salvador Skyrail—Finance Model

- **Bidding Proposal:** Construction, implementation and operation of Phase 1, and preference for Phases 2, 3 and 4.
 - Around 20km length;
 - Demand of 82K passengers per day;
 - Concession of 20 years
 - Capex: R\$2.4 billion;
 - 0,01% Discount over Public Grant: R\$ 152.977.352,17;
-
- **Intention:** Phase 1 & Phase 2 (connect to subway station Retiro) totally
 - Around 23,4km length
 - Estimated demand over 200K passengers per day.
 - Concession up to 35 years, including 2 years of construction.
 - Long-term project financing: preferred Banco do Nordeste (70% Capex, 20 years, IPCA+1.51% annual) + SUDENE (20% Capex, 20 years, IPCA+0,19% monthly)

Salvador Skyrail—Finance Model



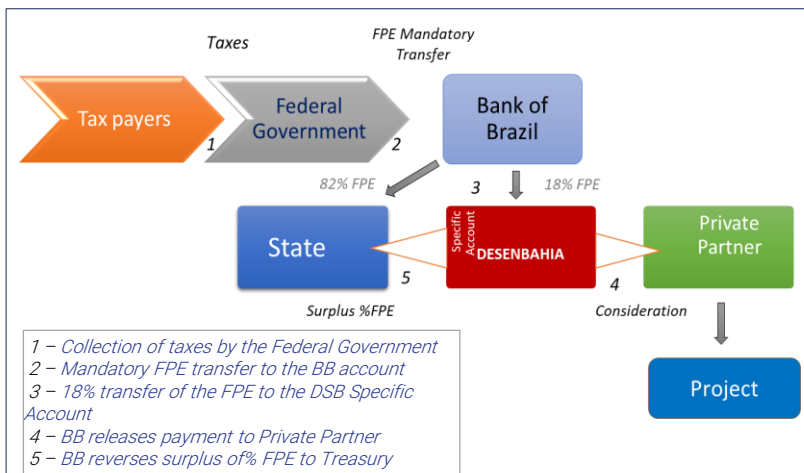
Salvador Skyrail



Salvador Skyrail - Secured Government Fund and Payment

PPP PAYMENT MECHANISM

Regulated by state law nº 11.477 of July 1, 2009.

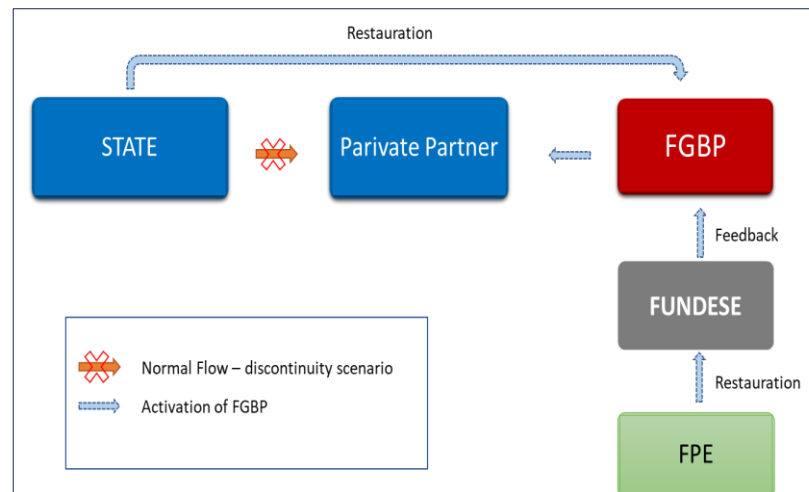


The Payment Mechanism compounds the Block of Contract that describes a financing operation of a PPP project:

- PPP Contract;
- Financing Contracts for SPE;
- Payment Agent Appointment Contract – BB;
- Cession Agreement and pledge of Rights.

BAHIAN GUARANTOR FUND FOR PARTNERSHIPS - FGBP

Regulated by state law nº 12.610 of December 27, 2012.



“Ensure the obligations assumed for any one of the beings from Direct and Indirect Administration from the State of Bahia in the scope of public-private partnerships if foreseen in the project, previously approved by the Management Council for Public-Private Partnerships...”

Salvador Skyrail

RISK SHARING

Private

- Project;
- Engineering;
- Construction;
- Technology;
- Service Level;
- Insurances;
- Financing;

Shared

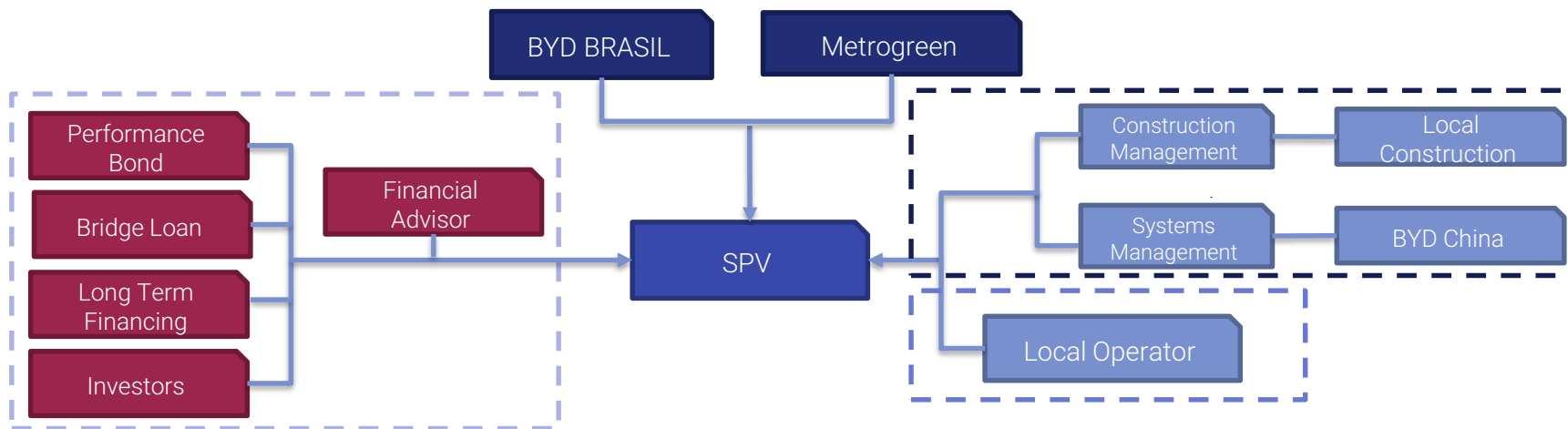
- Demand variation (from -25% till +25%);
- Exchange Rates (till R\$ 10 MM Private);
- Expropriation (till R\$ 30 MM – Private);
- Public Licenses;

Public

- Bus lines reorganization;
- Archeology;
- Energy availability and cost;
- Tax regulation modifications (0 tax to grant and tariff);
- INFLATION.

Salvador Skyrail

Brazil Local Partner + China Technology & Manufacture



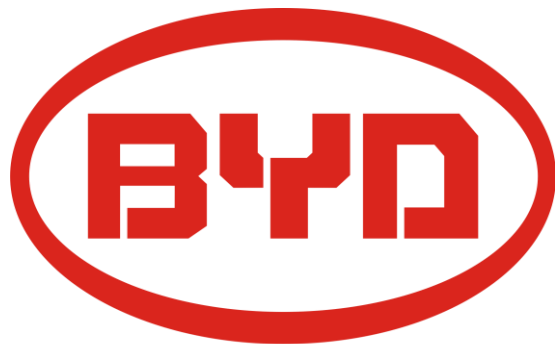
Salvador Skyrail

■ Brazil Local Partner + China Technology & Manufacture

For the construction risk mitigation, the consortium adopted some measures:

- Due Diligence of subcontractors;
- Risk/Legal Assessment of the EPC contract;
- Insurance matrix of concession contract and subcontracts;
- Performance bound and insurance from the subcontracts;

BYD



Build Your Dreams