



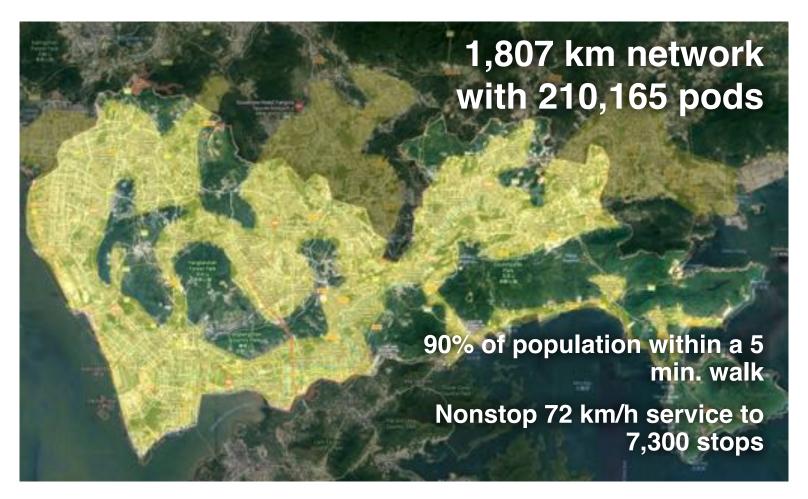
Transit X presents a preliminary proposal for a privately-financed, solar-powered micro-rail network — a fleet of automated electric vehicles (pods) for passengers and freight on a local and regional podway providing public transportation for

# Shenzhen, China

This proposal is downloadable at transitx.com/proposals/Transit X for Shenzhen, China.pdf

# High capacity · High speed · Nonstop · 24/7 Solar powered · Zero Wait · Door-to-door · Resilient

A 24-page companion Transit X Handbook is available at transitx.com/transitxhandbook.pdf



## **Proposal Overview**



Transit X proposes to build and operate a green, privately-financed micro-rail podway to carry passengers and freight for Shenzhen that makes the Transit X service convenient to 90% of the population.

Transit X efficiently services both suburbs and cities and provides for a higher quality of life. See transitx.com for more details. This 3-minute video (transitx.com/video) describes our innovative solution.

### **Major benefits**

- Reduce congestion
- · Provide parking relief
- Reduce pollution
- Improve safety

The Transit X Handbook (<u>transitx.com/</u> <u>transitxhandbook.pdf</u>) answers many questions about our service, the company, our technology, and the way we address: congestion, parking, road safety, pedestrian safety, ADA compliance, sustainability, fares,



solar+storage, construction, aesthetics, operations, economic development, quality of service, security, station footprint, equitability, carbon footprint, transit integration, resiliency, reliability, rights-of-way, and open space.

## Congestion, parking, pollution, and safety

Most regions suffer from traffic congestion, limited parking, air pollution, and unsafe roads. Potential solutions are costly, but Transit X can solve these challenges without public funding. Transit X can integrate into the built environment, providing both short term relief and a long term solution.

#### **High Capacity**

A single track carries 12,000 pods per hour (20,000 to 50,000 passengers per hour). Two boarding areas fit in a single car space and provide 2,000 boardings per hour.

## **Zero Footprint and Minimal Disruption**

Transit X features stops that don't interfere with pedestrians or other forms of transportation. We use easements alongside highway and roads and integrate utility lines and poles Non-stop interchanges fit above existing intersections. Factory-built tracks and posts enable fast installation with minimal disruption. Use of underground tunnels is an option. Posts are typically spaced at 23 m (25 yds).

### No public funding

Transit X does not require government funding because our revenue from fares, freight, and advertising is greater than our costs. We have reduced or eliminated many costs of transportation including the cost of materials, land, construction, fuel,

debt service, and labor. Our projects are financed by investment banks and private equity firms.

## Proven technology

Our team and partners have built fully automated systems that are now in operation around the world. Transit X may look unique, but the underlying design is very similar to systems that have been operating for 40 years with an exemplary safety record. The rollout and maiden flight occurred on Oct 29, 2018 in Leominster, Massachusetts. The first Transit X system will be demonstrated by the end of 2019.

### **Service Quality**

Transit X provides on-demand, last-mile service that is superior to cars or buses. An operating agreement will guarantee high levels of availability and reliability. Our use of small vehicles (pods) makes this possible. By reducing car use, Transit X creates walkable and bike-friendly neighborhoods.

## Less pollution: Air, Sound, Light, Visual, Water

Transit X offers a much higher quality of life by eliminating many forms of pollution. Pods are quiet, efficient and have zero emissions. Pods offer less visual impact than the existing roads and vehicles, and utility lines can be hidden within the track. At night, there is no light pollution from headlights or taillights. Water pollution from road runoff is significantly reduced. Parking lots and roadways can be converted into green space and community paths as they become unnecessary.

#### Sustainable and Efficient

Pods weigh only 45 kg (100 lbs) and achieve over 20 times the efficiency of electric cars. Solar, wind, and storage installed on our tracks and posts can provide 100% of the clean energy needed to power the system.

#### **More Transit & Fewer Cars**

Transit X provides the convenience and privacy that people value in cars, yet without the negative impacts of personal cars. Transit X combines the best of mass transit and personal transportation modes which will lead to greater use of public transit and fewer cars.

### **De-risking Projects**

Transit X partners with large, established firms to provide fixed-price contracts for the engineering, certification, construction, and operations of a Transit X system. Theses partnerships enable Transit X to de-risk all of the major elements of the project, and provide performance guarantees. We work with local construction firms.

### **Jobs and Workforce Development**

Many regional jobs will be created to build a new transportation infrastructure, as well many new types of jobs will be created from economic growth. The majority of the construction jobs will be locally sourced and preferential hiring is given to those displaced by the transition.

#### **Revenue Generator**

Not only does Transit X not require public financing, but the government and private easement owners receive 4-5% of gross revenue, which would be US\$495 million per year average over the first 10 years.

### **Short and Long Term Solution**

A project could be operational within 24 months from the start of a project. Transit X offers a rapidly-deployable solution that provides long term benefits. We would form a local company to build, operate, and maintain the network. At least 75% of the profits would be invested back into the region.

## **Moving Forward**

The diagram shows our process for a project. We submit a project proposal, then ask for a commitment for Transit X to build and operate a podway along rights-of-way easements. Example documents and a sample project schedule can be viewed at:

transitx.com/process

#### Legal Framework Proposal(s) Ordinance and Fasement right **Fixed** infrastructure Shov **Project Financing** Procurement, Manufacturing & Installation of Tracks and Poles MoU/Lot to create a Ridership-Revenue Legal **Pods** framework Procurement, Manufacturing & Commissioning Environmental to build Studies and Permit and operate Certification **Podways** Engineering Operational Expansion

#### **Evaluation**

Please review our preliminary proposal, and

then ask us any questions. We would be happy to provide further information, address specific concerns, or meet with specific people or groups. Any routes or coverage areas shown on the map are only preliminary suggestions and actual routes would be determined based on needs, rights-of-ways, utility corridors, location of trees, and many other factors.

We expect this proposal to be reviewed by one or more committees or working groups. Familiar transportation options, such as buses, light rail, subways, and ridesharing services (including autonomous vehicles) may have already been considered. Very few options offer the convenience of cars with at least the capacity of buses, and most, if not all, require public funding and subsidies.

Private cars have a dominant mode share because people like the privacy and convenience of a car — despite the significant risks and negative impact associated with them. People won't give up their cars unless the alternative is both better and cheaper. That is what Transit X can provide.

We hope you agree that this proposal offers a way to address your challenges in both the short and long term, providing an option that is better and lower risk than any alternative — including continuing with the status quo.

We hope you will conclude that moving forward with Transit X is an excellent opportunity to meet your current and future challenges.

**Process** 

Once we agree to move forward, we look to receive a commitment for Transit X to build and operate a podway along rights-of-way easements.

A podway network is rolled out in phases that each take less than 24 months.

#### **Other Resources**

The links below provide general information about Transit X:

- One minute video overview (transitx.com/video)
- Transit X Handbook (transitx.com/transitxhandbook.pdf)
- Letters of Project Financing, Due Diligence, Contracts (<u>transitx.com/letters.pdf</u>)
- Memorandum of Understanding template (<u>transitx.com/process/mou.html</u>)
- Example Right-of-Way agreement (transitx.com/process/resolution.html)
- Operating Agreement (<u>transitx.com/process/operating\_agreement.html</u>)
- General Q & A (transitx.com/QandA.html)
- Other proposals (transitx.com/proposals)

#### Addendum

The remaining pages of this proposal provide project-specific details:

- Project Overview and Impact pages 6 and 7
- Taxes and Fees pages 8 and 9
- Fares page 10 and 11
- Financial Project Summary with Pro Forma pages 12 and 13

We look forward to working with you to improve the quality of life for Shenzhen through better transportation.

Sincerely,



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Zoom e-room: https://zoom.us/j/8229009123

Website: transitx.com

Twitter: http://twitter.com/TransitXCorp

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11	di ISIUA.			
1	Transit X network length	1,807	km	
2	People (resident-equivalent) in region	11,908,400	resident-equivalent p	opulation
3	Route density ratio (route length to service area)	1.10		
4	Number of stops	7,300		
5	Triple-speed route length	0	km	
6	Water crossing route length	0	km	
7	Cost of fixed infrastructure	\$6,555,247,347		
8	per person	\$550		
9	Mode share of travel on Transit X (25% after first year)		after 10 years	
10	Distance traveled by passengers on Transit X, per year	77,434,371,000		
11	per day	212,148,962		
12	Daily potential energy generation with standard panels on tracks	13,880		
13	Sustainable energy use per day		MWh	6% of max capacity
14	Energy storage capital cost for 1 day(s) of supply at \$100 per kWh	\$89,670,402		
15	Size (rated power) of solar installation	208,469	KW	
16	Cost to generate sustainable energy (at \$1,000 per kW)	\$208,469,405		100/ -10057
17	Cost of buying sustainable energy at \$0.15 per kWh	\$134,506		12% of OPEX
18	Daily passengers riding Transit X	9,109,926		77% of the pop.
19	Distance per passenger per day		km	
20	Average distance per trip (assuming 3 trips per day)		km	
21	Single passenger fare for shared 8 km trip	\$0.52	3.55	RMB
22	Passenger distance traveled during peak hour	42,429,792		200/ - f
23	Breakeven	2,127,110	of people convenient	23% of expected and 20% to Transit X)
24	Boarding capacity	2,628,000	passengers per hour	(29% of customers)
25	Number of pods for peak demand	210,165	pods at 77% m	ode share
26	Number of customers per pod		and 57 people per	
27	Distance per pod per year	168,192		
28	Two-layer pod garage area (13% of route with side-parking)	231,182	m²	0.1% of car parking
29	Cost of pods	\$1,366,072,500	is \$88 per person	
30	Capital cost of energy generation and storage	\$387,581,749	is \$33 per person	
31 <b>P</b>	roject Finances			
32	Total Project Cost (privately financed)	\$8,308,901,596	56,500,530,853	RMB
33	Project cost	\$4,597,292		
34	Equity	\$2,492,670,479	16,950,159,256	RMB
35	Private debt financing	\$5,816,231,117	39,550,371,597	RMB
36				
37				
38	Dall and to the	#000 7F0 000	0.700 500 151	DMD
39	Debt service (per year)  Yearly fees and taxes (US\$52 per capita)	\$988,759,290 \$620,744,345		
40 41	really lees and taxes (US\$32 per capita)	\$620,744,345	4,221,061,543	NIVID
42				
43				
44	Project costs — per person	\$698	4,745	RMB
45	Number of motor vehicles displaced		motor vehicles	.=
70	Turnbor of motor veriloide diopiaced			DMD
46	Yearly cost of cars displaced — per person	\$5,852	09,790	UIND
	Yearly cost of cars displaced — per person	\$5,852 \$0.01	09,790	NIVID
			03,730	NIVID
46	Yearly cost of cars displaced — per person Operating costs per passenger-km	\$0.01		NIVID
46 47	Yearly cost of cars displaced — per person Operating costs per passenger-km Full costs per passenger-km	\$0.01 \$0.03		NIVID



## Impact of proposed network

1	Reduction in GHG emissions (metric tons CO2-eq)	7,646,644 MTCO2-eq annually
2	Estimated cost to maintain public roadways	\$337,973,878 annually
3	Reduced waste products	1,240,886 metric tons annually
4	Travel time saved (non-stop travel and congestion)	413 hrs/person annually
5	Cost savings from reduced car ownership	\$4,318 per person annually
6	Increase in household income (from time savings and car costs)	39%
7	Reported injuries avoided	48,009 annually
8	Lives saved (from safety)	480 annually
9	Land freed from parking (44,008 acres)	178,099,053 m <sup>2</sup>
12	Temperature reduction (from heat island effect & GHG reductions)	0.5 to 2 °C
11	Health care savings (from pollution, injuries)	High

## **Model Inputs**

	Model Inputs								
15	Ratio of road length to track length	4							
16	Walking speed	4.9	km/h						
17	Width of convenient swath along track	0.82	km						
18	Fixed cost per km (track & posts)	\$2,790,000	18,972,000	RMB					
19	Water crossing: additional cost per km	\$8,370,000							
20	Triple-speed: additional cost per km	\$5,580,000							
21	Rate factor for water crossings or high-speed links.	2.2							
22	Average distance traveled per person per year (for trips under 1600 km)	10,000	km						
23	Average distance per day per person	27	km						
24	Mode share % of people convenient to Transit X	85%	at 5 min walk.						
25	Percentage of daily demand during peak hour	20%							
26	Maximum capacity per track	37,854	pph						
27	Average dwell time during peak hour		seconds						
28	% of pods traveling on route with highest demand	18%							
29	Average speed of pod		km/h	45 mph					
30	Average # of trips for a daily customer	3	per day						
31	Average passengers per pod during peak hours		passengers						
32	Average passengers per pod		passengers						
	Average discount per passenger	25%	J						
33	Maximum passengers per pod		passengers						
34	Empty pods: Percentage non-revenue	25%	J						
35	Ex-Factory cost per pod	\$5,000	34,000	RMB					
36	Worldwide Median Income per Household (US\$)	10,000	68,000						
37	Average number of residents per household	2.3	,	RMB					
38	Base fare per km	\$0.11	0.8	RMB					
39	(per mile)	\$0.18		RMB					
40	O&M as % of project cost	5%							
41	Percentage debt financed	70%							
42	Length of loan/debt	10	years						
43	Interest rate for debt	7%	,						
44	kg CO2 emissions per liter of gasoline	2.37							
45	Monetary value of 1 hour personal time (USD)	\$3.75	26	RMB					
46	Eat. roadway maintenance per year per km	\$51,000	346,800	RMB					
47	Area of one parking lot space	23	m²						
48	Commercial income of land (annual)	\$0.30	per m <sup>2</sup>	RMB					
49	Distance from roadway that is convenient	0.25	•						
50	Stops per km	4.0							
51	Boarding capacity per stop	360	pph						
52	Solar panel area per meter of track	2.0							
53	Cost of sustainable energy and storage	\$0.15	per kWh						
54	Global Horizontal Irradiance (GHI)		kWh/m²/day						
55	Cost to generate sustainable energy	\$1,000	per kW						
56	Storage per column	40	kWh						
57	Typical span	23	m cols/km:	44					
58	Energy storage cost	\$100	per kWh						
59	Energy storage capacity		days						
60	Area of parked pod	2.20	m <sup>2</sup>						
61	Distance discount at max distance	40%							
62	Max distance discount	500	km						
63	Max usage discount at 10,000 km per capita	50%							
64	Shared Pod Discount	20%							
65	Shared Pod Compartment Discount	40%							
66	Mode share starting discount	67%							

## **Model Inputs (continued)**

68	Name of region or project	Shenzhen, China
69	Currency name	RMB
70	Equal to US\$1	6.8
71	Sustainable energy/electricity generation & storage as	CAPEX
72	Land area of region (sq. km)	2,050
73	Number of residents in region	11,908,400
74	% travel within region	85%
75	% of land area served by roads	80%
76	Coverage: % of pop. convenient (5 min walk) to Transit X	90%
77	Annual median household income (US\$)	\$15,000
78	Convenient walk time to stop (min)	5
79	Triple-speed route length (km)	0
80	Water crossing route length (km)	0.0
81	Visitors per year	0
82	Average length of visit (days)	2
83	Solar production ratio	1.57
84	Regional Fare Factor	1.0
85	EPC costs & contingency	30%
86	Triple-speed (km/h)	242
87	Trip Distance Factor	1
88	Number of Stops Factor	1

## Pod & Car

		Pod	Car
87	Service life (years)	20	12
88	Full cost of vehicle per year	\$200	\$9,000
89	Public cost to maintain infrastructure (per km)	\$0	\$100,000
90	Energy consumption (MPGe)	3564	24
91	Energy consumption (liters/100km)	0.07	9.8
92	Energy consumption (Watt-hours/km)	9	1375
93	mass of CO2 per vehicle per km (kg)	0	0.09875
94	Vehicle mass (kg)	45	1950
95	Average speed of urban travel (km/h)	72	16
96	Typical travel time (in minutes) for 8 km trip	6	29
97	Fare/cost per km	\$0.11	\$0.62
98	Number of deaths per 100M passenger-km	0.00001	1
99	Number of injuries per 100M passenger-km	0.0006	62
100	Volume to park (cubic meters)	5.7	70.9



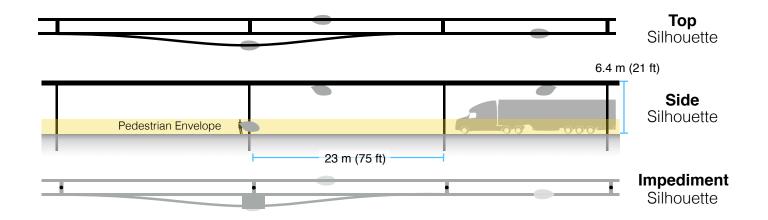
## 5% of gross revenue is paid for air rights and local taxes.

A minimum payment is based on the Footprint and the Transit X Commercial Rate (TXCR).

1	Air-rights and Local Taxes		(for calcul	ating minimums)
2	Total commercial land (estimated)	164,000,000	m <sup>2</sup>	acres
3	Total commercial gov't revenue (US\$)	\$49,200,000		334,560,000 RMB
4	TXCR (Transit X Commercial Rate)	\$0.30	per m²	2.0 RMB
5	TXCR is the yearly tax rate per land area. Calculation: total land area of commercial properties in the governmental region, divided by all the governmental income generated by those properties. The TXCR is used to calculate the minimum tax/fee.			
7	Private Easement Fees	For example		
8	4% of gross revenue	\$68.69	per route- meter	
9	Minimum per year	\$0.45	per route- meter	
10	Government Fees an	d Taxes		
11	% of route on government easements	98%		
12	5% on government easements	\$608,329,458		4,136,640,312 RMB
13	1% on private easements	\$2,482,977		
14	Total air-rights and local taxes	\$610,812,435	per year	4,153,524,558 RMB
16	per resident	\$51		349 RMB
15	with a minimum of	\$805,828	per year	5,479,631 RMB

## Footprint calculations for minimum fee

## Yearly fees and taxes



1	Footprint Calculations	Metric		Imperial
2	Track width	0.30	m	
3	Track height	0.60	m	
4	Post diameter	0.3	m	
5	Post cross section	0.07	m <sup>2</sup>	
6	Stop landing area	<u>3.75</u>	m <sup>2</sup>	
7	width	<u>1.5</u>	m	
8	length	2.5	m	
9	Ramp length	21		
10	Typical Span	<u>23</u>	m	
11	Number of posts per unit length	<u>43.5</u>	poles per km	
12	Post height	<u>6</u>	m	
13				
14	Single track	1022.1	m <sup>2</sup>	
15	Area of Side Silhouette	678.3	m <sup>2</sup>	
16	Area of Top Silhouette	313.1	m <sup>2</sup>	
17	Impediment Area (adjusted)	30.7	m <sup>2</sup>	
18	· , , , ,			
19	Dual track	1322.1	m <sup>2</sup>	
20	Area of Side Silhouette	678.3		
21	Area of Top Silhouette	613.1		
22	Impediment Area (adjusted)	30.7	m <sup>2</sup>	
23	,			
24	Stop	82.1	m <sup>2</sup>	
25	Area of Side Silhouette	25.2		
26	Area of Top Silhouette	19.4		
27	Impediment Area (adjusted)	37.5	m²	
28				
29	Stops with dedicated landing areas	2	stops per km	
30	% of dual track	100%		
31				
32	Average area per unit length	1,486	m² per route-km	
33				
34	Contract values			
35	% gross revenue for government on private prop.	1%		
36	% gross revenue for private easement	4%		
37	% gross revenue for government easement	5%		
38	Impediment Factor	10		



## **Fair Fare Formula**

## Summary

The average commute would be 3.5 times faster saving each commuter 295 hours per year.\*

At 0.46 RMB per km, a typical commute on Transit X is 17% less than public transit and 74% less than a Taxi.\*

			Trip Length	
A	II prices in RMB	2 km	10 km	40 km
	Transit X	<b>0.91</b> to 1.52 2 min., 3.6x faster	<b>4.51 to 7.55</b> 8 min., 3.6x faster	17.30 to 29.49 33 min., 3.4x faster
F	Public transit average	5.11	8.13	11.91
sepoi	Taxi	<b>7.08</b> 2 to 6 minutes	<b>30.84</b> 8 to 30 minutes	<b>119.95</b> 30 to 120 minutes
Common public modes	Uber/Lyft 5.39 2 to 6 minutes		<b>22.21</b> 8 to 30 minutes	<b>85.27</b> 30 to 120 minutes
non pı	Public Bus	<b>4.11</b> 3 to 12 minutes	<b>4.11</b> 15 to 60 minutes	<b>6.31</b> 60 to 240 minutes
Comr	Train	<b>6.17</b> 2 to 12 minutes	<b>7.27</b> 8 to 60 minutes	<b>11.38</b> 30 to 240 minutes
Personal car		<b>5.55</b> 2 to 6 minutes	<b>16.76</b> 8 to 30 minutes	<b>58.83</b> 30 to 120 minutes

	Avg. Speed	Low Speed	High speed				Min Dist	Max Dist.	Time cost	Mode 6%	shar 70%	
Travel mode	km/h	km/h	km/h	Base	Includ es km	Over per-km	km	km	per min	2	10	40
Taxi	30	20	80	4.11	1	2.06	0.5	100	1.83	5%	4%	1%
Uber/Lyft	30	20	80	3.29	1	1.65	0.5	100	0.91	10%	10%	2%
Public Bus	15	10	40	4.11	20	0.11	0.5	50	0	50%	50%	40%
Train	30	10	80	6.17	2	0.14	2	100	0	35%	36%	57%
Transit X	72	72	72	0	0	0.46	0.1	50	0	-	-	-
Personal car	30	20	80	2.74	0	1.37	0.1	400	0.06	-	-	-

<sup>\*</sup> All numbers on mode shares, speeds, and costs are rough estimates..

Base fares are set for first 5 years, then adjusted by formula. A 20% discount on a shared pod and a 40% discount on a shared compartment. Trips are discounted proportional to their length reaching a maximum of a 40% discount on a 500 km trip. No congestion—based pricing. Fares are proportional to the median income of the area and inversely proportional to per capita use, so the more use of Transit X, the lower the base fare up a to 50% discount. The amount of market—rate fares must be less than the amount of discounted fares. Transit X Fair Fare Formula and Fair Freight Formula is universal and applies to all regions and all times.



## **Fair Fare Formula**

## Fare rates are updated annually using this formula

	Formula Name	Value	Units	Description of the value or model input
1	GlobalIncome	68,000	RMB	Global median household income. Updated annually based on most recent
2	AllTravel	23,000	km	standard published data.  Travel distance per household per year on any mode for trips under 1600 km. A global constant
3	PercentIncomeForTransport	20%		% of median household income for all transportation under 1600 km trips. A global constant.
4	GlobalRate	0.59	RMB/km	Global rate: GlobalIncome * PercentIncomeForTransport / AllTravel
5	IncomeFirst	\$102,000	RMB	Median household income at first stop (per person per day). External input.  Based on reliable public data source updated annually.
6	IncomeDest	\$153,000	RMB	Median household income at destination per trip. External input. Based on reliable public data updated annually.
7	RegionalRate	0.89	RMB/km	Regional rate based on median income:  MedianIncomeFirst * PercentIncomeForTransport / AllTravel
8	UnderIncomeRate	0.00	RMB/km	Under global income adjustment: if (RegionalRate < GlobalRate, GlobalRate - RegionalRate, 0)
9	NominalRate	0.89	RMB/km	Nominal rate: RegionalRate + UnderIncomeRate
10	RegionalFactor AdjustedRate	1.00 0.89	DMD//m	Regional Fare Factor. Negotiated upfront to make network financially viable.
	Population		RMB/km	Regional adjusted rate: NominalRate * RegionalFactor
13	ropulation	11,908,400		Population in region. Updated annually based on trusted public data source.  Fare Discount when Transit X travel per household equals AllTravel. Global
12	UsageMaxDiscount	50%		constant.  Total passenger distance traveled previous calendar year. Based on expected
14	PassengerTravel	77,434,371,000	km	mode share for first 3 years. Based on actual passenger trips. Audited.  Percent of Total Travel Per Capita on Transit X:
15	ModeShare	28%		PassengerTravel / (Population x AllTravel)  Base rate for single-passenger pod (without discounts)
16 17	BaseRate SpecialRateFactor	<b>0.76</b>	RMB/km	(1 - UsageMaxDiscount x min(1,ModeShare)) x AdjustedRate  Rate factor for water crossings or high-speed links. Global constant.
	•	-		Base rate for high-speed travel or water crossings:
18	SpecialBaseRate	1.68	RMB/km	BaseRate * SpecialRateFactor
19	DistanceDiscount	40%		Distance discount at max distance. Global constant.
20	MaxDistanceDiscount	500	km	Max distance discount. Global constant.
21	DistanceDiscountPerKm	0.000609	RMB/km	Discount amount per km:  BaseRate x DistanceDiscount / MaxDistanceDiscount
22	SeniorDiscount	20%		Senior discount set according to local regulations
23	StudentDiscount	20%		Student discount set according to local regulations
	DisabilityDiscount	20%		Disability discount set according to local regulations
24	DiscountBaseRate	0.61	RMB/km	Discounted base rate: BaseRate x (1 - SeniorDiscount)
25	SharedPodDiscount	20%		Discount for a shared pod. Set by Transit X per year. 15% minimum and 30% maximum. Maximum yearly change is one percentage point.
26	SharedPodRate	0.61	RMB/km	Rate for a shared pod: BaseRate x (1 - SharedPodDiscount)
27	SharedCompartmentDiscount	40%		Discount for shared compartment. Set by Transit X per year. 25% minimum and 40% maximum. Maximum yearly change is one percentage point.
28	SharedCompartmentRate	0.46	RMB/km	Rate for shared compartment  BaseRate x (1 - SharedCompartmentDiscount)
29	SingleOccupancyMaxDistance	0.52	RMB/km	Rate for 500 km in single-passenger pod.
30	Senior + SharedCompartmentRate	0.22	RMB/km	Rate for a Senior taking a 500 km trip in a shared compartment.  BaseRate x (1 - SeniorDiscountAmount) x (1 - SharedCompartmentDiscount) x (1 - MaxDistanceDiscount)
31	50PctIncomeAtDest	25%		% Higher fare rate if Destination has 50% higher median income than First (IncomeDest / IncomeFirst - 1) / 2
32	DistanceBase	57,301,434,540	km	Passenger distance under base fare. Audited value from operational data.
33	PercentBase	74%		Percent of passenger distance under base fare:  DistanceBase / PassengerTravel
34	BaseRevenue	32,763,737,718	RMB	Annual revenue from all travel under base rate. Audited value from operational data.
35	AverageDiscount	25%		Average fare discount from Base Rate:  1 - (BaseRevenue / (DistanceDase x BaseRate))
36	MarketFactor	1.0		Market rate factor. Negotiated value for setting ratio of AverageDiscount
37	MarketRateCap	25%		Cap on passenger travel distance at market rate:  AverageDiscount x MarketFactor
38	MarketTravelCap	14,280,550,238	km	Cap on passenger travel distance at market rate:  DistanceBase x MarketRateCap

## **Project Summary**

**Project** A fully-automated, solar-powered, micro-**Description** rail network. A transportation utility.

Project type Privately-funded Public Transit

Design, Build, Finance, Own, Operate,

Maintain (DBFOOM)

Project cost US\$8.31 billion

Cost to Gov't \$0

Structure Privately financed equity and debt

Debt term 10 years @ 7%

**Equity terms** A waterfall profit distribution per year with:

1. 90% until capital payback,

2. then 50% until Target% is reached

3. then 10%

Taxes & Fees \$610,812,435 per year

Benefits to

society and Extremely high environment

## **Financials**

(US\$ in millions)

	Year 1	Total Years 1-12
Gross Revenues	4,097	118,817
Taxes and fees	205	5,941
Debt service	\$407	\$4,478

## ESG (Environmental, Social, Governance) Benefits

Clean energy	yes	Resiliency	yes
Energy security	yes	Sustainable	yes
Emissions-free	yes	Equitable	yes
GHG-free	yes	Recyclable materials	yes
Lowers pollution	yes	Affordable housing	yes
Clean water	yes	Improved Health	yes
Improved Safety	yes	Econ. Development	yes
New infrastructure	yes	Access to Food	yes
Equitable transport	yes	New job creation	yes

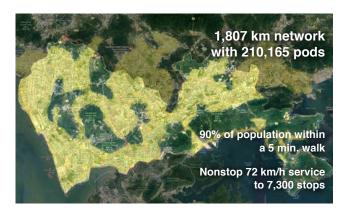




Transit X presents a preliminary proposal for a privately-financed, solar-powered public transit network — a fleet of fully-autonomous, shared, electric, 4-passenger vehicles (pods) on a local and regional podway

## Shenzhen, China

High capacity • High speed • Nonstop • 24/7
Solar powered • Zero Wait • Door-to-door • Resilient



#### **About Transit X**

Transit X finances, designs, builds, and operates solar-electric micro-rail public transit podways to supplant buses, trains, cars, and trucks. Transit X offers its service to governments and commercial developers. Maiden Flight was on Oct 29, 2018 and pilot projects started in 2018. First pilots will break ground in 2019 and begin operations in 2020. Transit X is a privately held company founded in 2015, based in Boston, Massachusetts.

#### Status

	Now	Prior to close
Project financing	Letter of intent	Yes
Outdoor test system	Dec, 2019	Yes
Rider-Revenue study	Preliminary	Yes
Environmental study	Per region Yes	Yes
Air rights	Per project	Yes
Permitting	Per project	Yes
Safety certification	In process	Yes
Construction firm	Per project	Yes
Design and major subs	Per project	Yes
Operations & Maint	Yes	Yes
Utility relocation	Per project	Agreements

General information available at <u>transitx.com</u>. Detailed information and references can be provided under appropriate non-disclosure/non-compete/non-circumvent agreements. Contact: Mike Stanley, CEO, Transit X, mike@transitx.com, 508-596-7024



## **Model Inputs and Assumptions**

Route length (km) 1,807

Starting number of pods 69,354

Projected revenue growth 15%

Project Cost (Privately funded) \$8,308,901,596

% Debt financed 70%

Debt \$5,816,231,117

**Equity** \$2,492,670,479

**Debt payment (per year)** \$407,136,178

Travel per year per pod (km) 168,192

Revenue per vehicle-km (US\$) 0.35

OPEX as % of project cost 5%

Debt Interest rate 7%

Debt term (yrs) 10

Profit share when below capital return 90%

Profit share when below Target IRR 50%

Profit share when above Target IRR 10%

#### **Pro Forma**

	Years 0		1	2	3	4	5	6	7	8	9	10	11	12
Revenue	0	)	4,096,886,091	4,711,419,005	5,418,131,856	6,230,851,634	7,165,479,379	8,240,301,286	9,476,346,479	10,897,798,451	12,532,468,218	14,412,338,451	16,574,189,219	19,060,317,602
5% RoW+tax+fee	0%	5	204,844,305	235,570,950	270,906,593	311,542,582	358,273,969	412,015,064	473,817,324	544,889,923	626,623,411	720,616,923	828,709,461	953,015,880
Debt service	0	)	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178	\$407,136,178
Investor share	0	,	2,486,263,028	628,713,411	676,280,124	738,350,413	809,731,245	891,819,201	986,220,351	1,094,781,674	1,219,627,194	1,363,199,543	1,528,307,745	1,718,182,176
investor strate			2,400,200,020	020,713,411	070,200,124	730,330,413	007,701,240	071,017,201	700,220,001	1,074,701,074	1,217,027,174	1,000,177,040	1,020,007,740	1,710,102,170
Investor share (%	6)		90%	19%	18%	17%	16%	15%	14%	14%	13%	13%	12%	12%
Share / Orig Capi	ital 0%	5	100%	25%	27%	30%	32%	36%	40%	44%	49%	55%	61%	69%

#### **Important Notices**

The information contained in this document is not an offer to sell or a solicitation to buy any security. These materials and documents and information from which they are derived or which are referred to by or accessible from them may contain forward looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 2E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are forward looking statements and are subject to risks and uncertainties. Forward looking statements generally can be identified by the use of forward looking terminology such as "may," "will," "expect," "intend," "estimate," "project," "anticipate," "believe" or "plan" or the negative thereof or variations thereon or similar terminology. Although Transit X believes that the expectations reflected in such forward looking statements are reasonable, it can give no assurance that such expectations will prove to be correct. All forward looking statements speak only as of the date made. Except as required by law, Transit X undertakes no obligation to update any forward looking statement to reflect events or circumstances after the date on which it is made or to reflect the occurrence of anticipated or unanticipated events or circumstances. These materials and documents and information from which they are derived or which are referred to by or accessible from them represent Transit X's best estimate as to the allocation of the funding proceeds based upon its present business plan and financial condition. The costs and expenses to be incurred in pursuing the Company's business plan cannot be predicted with certainty. There can be no assurance that unforeseen events will not occur or that the Company's business plan will be achieved or that it will not be changed, and it is possible that the funding proceeds may be applied in a manner other than that described herein.