



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

# Sydney, Australia

This proposal is downloadable at <a href="mailto:transitx.com/proposals/Transitx">transitx.com/proposals/Transitx</a> for Sydney, Australia.pd:

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

A companion Transit X Handbook is available at <a href="mailto:transitx.com/transitxhandbook.pdf">transitx.com/transitxhandbook.pdf</a>



## **Proposal Overview**



Transit X proposes to finance, build and operate a sustainable microrail podway to carry passengers and freight for Sydney that makes the Transit X service convenient to 95% 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 & High Speed**

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. For urban commutes, pods trips are 3 times faster than car trips and the high-speed podway provides faster door-to-door trips than air travel for distances of 1,000 miles or less.

### **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. There are options for long crossings using bridges or underground tunnels. Posts are typically spaced at 23 m (25 yds).

### Low-cost Infrastructure & equitable fares

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 typically financed by investment banks, private equity firms, banks, and governments.

### 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 55 kg (121 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 for Government**

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\$701 million per year average over the first 10 years.

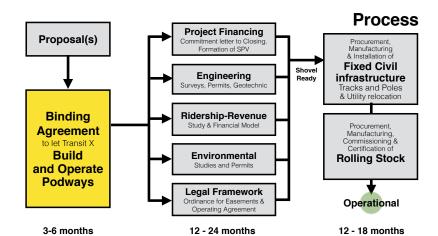
## Short and Long Term Solution

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



#### **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.

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 (transitx.com/letters.pdf)
- Memorandum of Understanding template (transitx.com/process/mou.html)
- Example Right-of-Way agreement (<u>transitx.com/process/resolution.html</u>)
- Operating Agreement (transitx.com/process/operating\_agreement.html)
- 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 Sydney through better transportation.

Sincerely,



Email: hello@transitx.com

Telephone: +1 508-596-7024 (WhatsApp connected)

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

Website: transitx.com

Twitter: http://twitter.com/TransitXCorp

Mail: 1127 Commonwealth Ave #30, Boston, MA 02134 USA







	al ISIUA.			
1	Transit X network length	3,597	km	
2	People (resident-equivalent) in region	5,030,000	resident-equivalent p	opulation
3	Route density ratio (route length to service area)	0.58		
4	Number of stops	7,270		
5	Triple-speed route length	0	km	
6	Water crossing route length	0	km	
7	Cost of fixed infrastructure	\$13,044,598,026		
8	per person	\$2,593		
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	30,061,161,220		
11	per day	82,359,346		
12	Daily potential energy generation with standard panels on tracks	27,621.3		
13	Sustainable energy use per day	519.2	MWh	2.0% of max capacity
14	Energy storage capital cost for 1 day(s) of supply at \$250 per kWh	\$129,801,963		
15	Size (rated power) of solar installation	120,708	KW	
16	Cost to generate sustainable energy (at \$1,000 per kW)	\$120,707,558		10/ -1 ODEY
17	Cost of buying sustainable energy at \$0.15 per kWh	\$77,881		4% of OPEX
18	Daily passengers riding Transit X	3,757,645		75% 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 7 km trip	\$1.66	2.44	AUD
22	Passenger distance traveled during peak hour	16,471,869		200/ - f
23	Breakeven	1,081,313	of people convenient	29% of expected and 23% to Transit X)
24	Boarding capacity	2,617,200	passengers per hour	(70% of customers)
25	Number of pods for peak demand	121,689	pods at 75% m	ode share
26	Number of customers per pod		and 41 people per	
27	Distance per pod per year	168,192		
28	Two-layer pod garage area (4% of route with side-parking)	133,858	m²	0.2% of car parking
29	Cost of pods	\$790,978,500	is \$121 per persor	1
30	Capital cost of energy generation and storage		is \$65 per person	
31 <b>P</b> r	roject Finances			
32	Total Project Cost		20 917 021 190	
		\$14,161,238,904	20,617,021,109	AUD
33	Project cost per km	\$14,161,238,904 \$3,937,478		AUD
	Project cost per km Equity financing		per km	
34	•	\$3,937,478	per km	AUD
34 35 36	Equity financing	\$3,937,478 \$4,248,371,671	per km 6,245,106,357	AUD
34 35 36 37	Equity financing	\$3,937,478 \$4,248,371,671	per km 6,245,106,357	AUD
34 35 36 37 38	Equity financing  Debt financing	\$3,937,478 \$4,248,371,671 \$9,912,867,233	per km 6,245,106,357 14,571,914,832	AUD AUD
34 35 36 37 38 39	Equity financing  Debt financing  Debt service (per year)	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430	per km 6,245,106,357 14,571,914,832 2,477,225,521	AUD AUD
33 34 35 36 37 38 39 40	Equity financing  Debt financing	\$3,937,478 \$4,248,371,671 \$9,912,867,233	per km 6,245,106,357 14,571,914,832	AUD AUD
34 35 36 37 38 39 40 41	Equity financing  Debt financing  Debt service (per year)	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430	per km 6,245,106,357 14,571,914,832 2,477,225,521	AUD AUD
34 35 36 37 38 39	Equity financing  Debt financing  Debt service (per year)	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430	per km 6,245,106,357 14,571,914,832 2,477,225,521	AUD AUD
34 35 36 37 38 39 40 41 42	Equity financing  Debt financing  Debt service (per year)	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430	per km 6,245,106,357 14,571,914,832 2,477,225,521	AUD AUD AUD AUD
34 35 36 37 38 39 40 41	Debt financing  Debt service (per year)  Yearly fees and taxes (US\$175 per capita)  OPEX + Debt service + Tax + Fees	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430 \$879,192,803	per km 6,245,106,357 14,571,914,832 2,477,225,521 1,292,413,420	AUD AUD AUD AUD
34 35 36 37 38 39 40 41 42 43 44	Debt financing  Debt service (per year)  Yearly fees and taxes (US\$175 per capita)  OPEX + Debt service + Tex + Fees  Project costs — per person	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430 \$879,192,803	per km 6,245,106,357 14,571,914,832 2,477,225,521 1,292,413,420 4,139	AUD AUD AUD AUD
34 35 36 37 38 39 40 41 42 43 44	Debt service (per year)  Yearly fees and taxes (US\$175 per capita)  OPEX + Debt service + Tax + Fees  Project costs — per person Number of motor vehicles displaced	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430 <b>\$879,192,803</b> \$2,815 3,006,116	per km 6,245,106,357 14,571,914,832 2,477,225,521 1,292,413,420 4,139 motor vehicles	AUD AUD AUD AUD
34 35 36 37 38 39 40 41 42 43 44 45	Debt service (per year)  Yearly fees and taxes (US\$175 per capita)  OPEXAL Debt service = Texal Fees  Project costs — per person Number of motor vehicles displaced Yearly cost of cars displaced — per person	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430 <b>\$879,192,803</b> \$2,815 3,006,116 \$5,379	per km 6,245,106,357 14,571,914,832 2,477,225,521 1,292,413,420 4,139 motor vehicles	AUD AUD AUD AUD
34 35 36 37 38 39 40 41 42 43	Debt financing  Debt service (per year)  Yearly fees and taxes (US\$175 per capita)  Project costs — per person  Number of motor vehicles displaced  Yearly cost of cars displaced — per person  Operating costs per passenger-km	\$3,937,478 \$4,248,371,671 \$9,912,867,233 \$1,685,187,430 \$879,192,803 \$2,815 3,006,116 \$5,379 \$0.02	per km 6,245,106,357 14,571,914,832 2,477,225,521 1,292,413,420 4,139 motor vehicles 7,907	AUD AUD AUD AUD



## Impact of proposed network

1	Reduction in GHG emissions (metric tons CO2-eq)	2,968,540 MTCO2-eq annually
2	Estimated cost to maintain public roadways	\$637,152,888 annually
3	Reduced waste products	481,730 metric tons annually
4	Travel time saved (non-stop travel and congestion)	389 hrs/person annually
5	Cost savings from reduced car ownership	\$1,934 per person annually
6	Increase in household income (from time savings and car costs)	14%
7	Reported injuries avoided	18,638 annually
8	Lives saved (from safety)	186 annually
9	Land freed from parking (17,084 acres)	69,140,671 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**

	woder inpu	มเร		
15	Ratio of road length to track length	4		
16	Walking speed		km/h	
17	Width of convenient swath along track	1.63		
18	Fixed cost per km (track & posts)	\$2,790,000	4,101,300	AUD
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		
00	Average distance traveled per person per year	10.000	l	
22	(for trips under 1600 km)	10,000		
23	Average distance per day per person		km	
24	Mode share % of people convenient to Transit X		at 5 min walk.	
25	Percentage of daily demand during peak hour	20%		
26	Maximum capacity per track	25,380	• •	
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		per day	
31	Average passengers per pod during peak hours		passengers	
32	Average passengers per pod		passengers	
	Average discount per passenger	19%		
33	Maximum passengers per pod		passengers	
34	Empty pods: Percentage non-revenue	25%		
35	Ex-Factory cost per pod	\$5,000	7,350	
36	Worldwide Median Income per Household (US\$)	10,000	14,700	
37	Average number of residents per household	2.3		AUD
38	Base fare per km	\$0.38		AUD
39	(per mile)	\$0.61	0.9	AUD
40	O&M as % of project cost	5%		
41	Percentage debt financed	70%		
42	Length of loan/debt		years	
43	Interest rate for debt	7%		
44	kg CO2 emissions per liter of gasoline	2.37	10	ALID
45	Monetary value of 1 hour personal time (USD)  Eat. roadway maintenance per year per km	\$12.50 \$51,000	74,970	AUD
46	Area of one parking lot space		74,970 m <sup>2</sup>	AUD
47	Commercial income of land (annual)		per m <sup>2</sup>	AUD
48	Distance from roadway that is convenient	0.49		AUD
50	Stops per km	2.0	KIII	
51	Boarding capacity per stop	360	nnh	
52	Solar panel area per meter of track	2.0	ррп	
53	Cost of sustainable energy and storage		per kWh	
54	Global Horizontal Irradiance (GHI)		kWh/m²/day	
55	Cost to generate sustainable energy		per kW	
56	Storage per column		kWh	
57	Typical span	23		44
58	Energy storage cost		per kWh	
59	Energy storage capacity		days	
60	Area of parked pod	2.20	,	
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	Sydney, Australia
69	Currency name	AUD
	•	1.47
70	Equal to US\$1	1.47
71	Sustainable energy/electricity generation & storage as	CAPEX
72	Land area of region (sq. km)	12,367
73	Number of residents in region	5,030,000
74	% travel within region	80%
75	% of land area served by roads	50%
76	Coverage: % of pop. convenient (10 min walk) to Transit X	95%
77	Annual median household income (US\$)	\$50,000
78	Convenient walk time to stop (min)	10
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	Daily Passengers Adjustment	100%
88	Number of Stops Adjustment	100%
89	Mode Share Adjustment	100%

## 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 7 km trip	6	27
97	Fare/cost per km	\$0.38	\$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



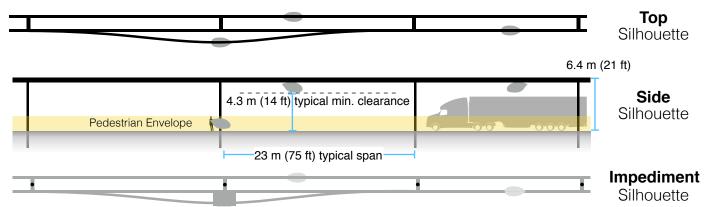
## 5% of gross revenue is paid for air rights and local taxes.

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

1	Air-rights and Local Taxes		(for calculating m	inimums)	
2	Total commercial land (estimated)	618,350,000	m²		acres
3	Total commercial gov't revenue (US\$)	\$618,350,000		908,974,500	AUD
4	TXCR (Transit X Commercial Rate)	\$1.00	per m <sup>2</sup> (estimated)	1.5	AUD
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 exam	ole		
8	4% of gross revenue	\$48.89	per route-meter		
9	Minimum per year	\$1.49	per route-meter		
10	Transit X payment to Gove	rnment			
10	Transit X payment to Government easements		estimated		
	• •			1,271,734,805	AUD
11	% of route on government easements	98%			AUD AUD
11	% of route on government easements  Total air-rights and local taxes	98% <b>\$865,125,718</b>	per year		AUD
11 12 13	% of route on government easements  Total air-rights and local taxes  per resident	98% <b>\$865,125,718</b> \$172	per year	253 7,857,422	AUD
11 12 13 14	% of route on government easements  Total air-rights and local taxes  per resident	98% <b>\$865,125,718</b> \$172 \$5,345,185	per year	253 7,857,422	AUD AUD
11 12 13 14 15	% of route on government easements  Total air-rights and local taxes  per resident  with a minimum of	98% <b>\$865,125,718</b> \$172 \$5,345,185	per year	253 7,857,422	AUD AUD AUD
11 12 13 14 15	% of route on government easements  Total air-rights and local taxes  per resident  with a minimum of  Other financial benefits to	98% \$865,125,718 \$172 \$5,345,185 Government	per year	253 7,857,422	AUD AUD AUD AUD
11 12 13 14 15 16	% of route on government easements  Total air-rights and local taxes  per resident  with a minimum of  Other financial benefits to  Less road maintenance from lower VMT	98% \$865,125,718 \$172 \$5,345,185  Government  and lanes	per year	253 7,857,422	AUD AUD AUD AUD AUD

## Footprint calculations for minimum fee

## Yearly fees and taxes



Pod landing area: 1.5m x 2.5m with 3m minimum spacing

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	<u>2.5</u>		
9	Ramp length	<u>21</u>		
10	Typical Span	<u>23</u>		
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		
23	( <b>,</b> ,			
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	m <sup>2</sup>	
28	, ,			
29	Stops with dedicated landing areas	2	stops per km	
30	% of dual track	100%	stops per kill	
31	70 of dual frack	100 70		
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		
	podioner dotor	1.0		



## **Fair Fare Formula**

## Summary

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

At 0.33 AUD per km, a typical commute on Transit X is 17% less than public transit and 74% less than a Taxi.\*

Trin Length

			Irip Length	
	III prices in AUD	2 km	10 km	40 km
	Transit X	<b>0.67</b> to 1.11 2 min., 3.6x faster	<b>3.29</b> to 5.52 8 min., 3.6x faster	<b>12.63</b> to 21.53 33 min., 3.4x faster
ı	Public transit average	3.73	5.93	8.70
sepou	Taxi	<b>5.17</b> 2 to 6 minutes	<b>22.52</b> 8 to 30 minutes	<b>87.58</b> 30 to 120 minutes
ublic n	Uber/Lyft	<b>3.94</b> 2 to 6 minutes	<b>16.22</b> 8 to 30 minutes	<b>62.26</b> 30 to 120 minutes
Common public modes	Public Bus	<b>3.00</b> 3 to 12 minutes	<b>3.00</b> 15 to 60 minutes	<b>4.60</b> 60 to 240 minutes
Com	Train	<b>4.50</b> 2 to 12 minutes	<b>5.31</b> 8 to 60 minutes	<b>8.31</b> 30 to 240 minutes
ı	Personal car	<b>4.21</b> 2 to 6 minutes	<b>13.05</b> 8 to 30 minutes	<b>46.21</b> 30 to 120 minutes
Travel	Avg. Low High Speed Speed speed speed mode km/h km/h km/h km/h	d Dist D n Base Includ Over km k es km per-km	cm per min 2 10 40	* All numbers on mode shares, speeds, and costs are rough estimates

100

50

1.20 0.5 100

0.08 0.5 50

1.00 0.1 400

0.10 2

0.33 0.1

0.67

0

0

0

0.21

10% 10% 2%

50% 50% 40%

35% 36% 57%

30

15

30

72

30

20

10

10

72

20

2.40

3.00

4.50

2.00

0

80

40

80

72

80

Uber/Lyft

**Public Bus** 

Transit X

Personal car

Train

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

	Name	Value	Units	Description of the value or model input	In USD
1	GlobalIncome	14,700	AUD	Global median household income. Updated annually based on most recent standard published	10,000
	AllTravel	,		data.	. 0,000
2	PercentIncomeForTr	23,000	km	Travel distance per household per year on any mode for trips under 1600 km. A global constant	
3	ansport	20%	A L ID //	% of median household income for all transportation under 1600 km trips. A global constant.	0.00
4	GlobalRate	0.13	AUD/km	Global rate: GlobalIncome * PercentIncomeForTransport / AllTravel  Median household income at first stop (per person per day). External input. Based on reliable	0.09
5	IncomeFirst	\$73,500	AUD	public data source updated annually.	\$50,000
6	IncomeDest	\$110,250	AUD	Median household income at destination per trip. External input. Based on reliable public data updated annually.	\$75,000
7	RegionalRate	0.64	AUD/km	Regional rate based on median income:  MedianIncomeFirst * PercentIncomeForTransport / AllTravel	0.43
8	UnderIncomeRate	0.00	AUD/km	Under global income adjustment: if (RegionalRate < GlobalRate, GlobalRate - RegionalRate, 0)	0.00
9	NominalRate	0.64	AUD/km	Nominal rate: RegionalRate + UnderIncomeRate	0.43
10	RegionalFactor	1.00		Regional Fare Factor. Negotiated upfront to make network financially viable.	
11	AdjustedRate	0.64	AUD/km	Regional adjusted rate: NominalRate * RegionalFactor	0.43
13	Population	5,030,000	-	Population in region. Updated annually based on trusted public data source.	
12	UsageMaxDiscount	50%		Fare Discount when Transit X travel per household equals AllTravel. Global constant.	
14	PassengerTravel 3	0,061,161,22	2C km	Total passenger distance traveled previous calendar year. Based on expected mode share for first 3 years. Based on actual passenger trips. Audited.	
15	ModeShare	26%		Percent of Total Travel Per Capita on Transit X:  PassengerTravel / (Population x AllTravel)	
16	BaseRate	0.56	AUD/km	Base rate for single-passenger pod (without discounts) (1 - UsageMaxDiscount x min(1,ModeShare)) x AdjustedRate	0.38
17	SpecialRateFactor	2.20		Rate factor for water crossings or high-speed links. Global constant.	
18	SpecialBaseRate	1.22	AUD/km	Base rate for high-speed travel or water crossings:  BaseRate * SpecialRateFactor	0.83
19	DistanceDiscount	40%		Distance discount at max distance. Global constant.	
20	MaxDistanceDiscou	500	km	Max distance discount. Global constant.	
21	nt DistanceDiscountPe	0.000445	AUD/km	Discount amount per km:	
	rKm		AUD/KIII	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	0.44	AUD/km	Discounted base rate: BaseRate x (1 - SeniorDiscount)  Discount for a shared pod. Set by Transit X per year. 15% minimum and 30% maximum.	0.30
25	SharedPodDiscount	20%		Maximum yearly change is one percentage point.	
26	SharedPodRate	0.44	AUD/km	Rate for a shared pod: BaseRate x (1 - SharedPodDiscount)	0.30
27	SharedCompartment Discount	40%		Discount for shared compartment. Set by Transit X per year. 25% minimum and 40% maximum. Maximum yearly change is one percentage point.	
28	SharedCompartment Rate	0.33	AUD/km	Rate for shared compartment  BaseRate x (1 - SharedCompartmentDiscount)	0.23
29	SingleOccupancyMa xDistance	0.38	AUD/km	Rate for 500 km in single–passenger pod.	
30	Senior + SharedCompartment Rate	0.16	AUD/km	Rate for a Senior taking a 500 km trip in a shared compartment.  BaseRate x (1 - SeniorDiscountAmount) x (1 - SharedCompartmentDiscount) x (1 - MaxDistanceDiscount)	0.11
31	50PctIncomeAtDest	25%		% Higher fare rate if Destination has 50% higher median income than First (IncomeDest / IncomeFirst - 1) / 2	
32	DistanceBase 2	2,245,259,30	DE 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 1	0,031,669,49	96 AUD	Annual revenue from all travel under base rate. Audited value from operational data.	
35	AverageDiscount	19%		Average fare discount from Base Rate:	
36	MarketFactor	1.0		1 - (BaseRevenue / (DistanceDase x BaseRate))  Market rate factor. Negotiated value for setting ratio of AverageDiscount	
37	MarketRateCap	19%		Cap on passenger travel distance at market rate:  AverageDiscount x MarketFactor	
38	MarketTravelCap 4	1,205,733,52	0 km	Cap on passenger travel distance at market rate:	
				DistanceBase x MarketRateCap	

## **Project Summary**

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

**Project type Sustainable Transportation Infrastructure** 

Design, Build, Finance, Own, Operate, Maintain

(DBFOOM)

Project equity US\$4.25 billion (30% of total)

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

then 10%

Taxes & Fees \$865,125,718 per year

Benefits to

society and Extremely high environment

Estimated return 39% average IRR at 5 yrs 47% average IRR at 10 yrs

Financials (US\$ in millions)	Year 1	Total Years 1-12
Gross Revenues	5,803	168,286
Taxes and fees	290	8,414
Debt service	\$694	\$7,633

## ESG (Environmental, Social, Governance) Benefits

Clean Energy	yes	Improve Resiliency	yes
Energy security	yes	Sustainable	yes
Zero Emissions	yes	Equitable	yes
Zero GHG	yes	Recyclable Materials	yes
<b>Lowers Pollution</b>	yes	Affordable Housing	yes
Clean Water	yes	Improved Health	yes
Improved Safety	yes	<b>Economic Development</b>	yes
Add Green Space	yes	Access to Food	yes
Accessible	yes	Add Quality Jobs	yes

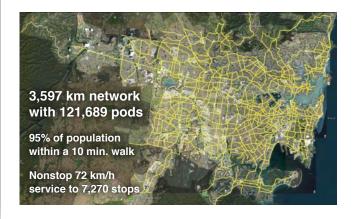




Transit X presents a preliminary proposal for a sustainable micro-rail network – a fleet of automated electric vehicles (pods) for passengers and freight on a local and regional podway providing equitable public transportation for

## Sydney, Australia

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	Available	Yes
<b>Outdoor Test Track</b>	Nov 2019	Yes
Rider-Revenue study	Preliminary	Yes
<b>Environmental study</b>	Per region	Yes
Air rights	Per project	Yes
Permitting	Per project	Yes
Safety certification	Per country	Yes
Construction firm	Per project	Yes
Design and major subs	Per project	Yes
<b>Operations &amp; Maint</b>	Partners	Yes
Utility relocation	Per project	Agreements

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



## **Model Inputs and Assumptions**

Route length (km) 3,597

Starting number of pods 40,157

Projected revenue growth 15%

Project Cost (Privately funded) \$14,161,238,904

% Debt financed 70%

Debt \$9,912,867,233

**Equity** \$4,248,371,671

Debt payment (per year) \$693,900,706

Travel per year per pod (km) 168,192

Revenue per vehicle-km (US\$) 0.86

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	5,802,619,034	6,673,011,889	7,673,963,673	8,825,058,223	10,148,816,957	11,671,139,501	13,421,810,426	15,435,081,990	17,750,344,288	20,412,895,931	23,474,830,321	26,996,054,869
5% RoW÷tax÷fe	e	0%	290,130,952	333,650,594	383,698,184	441,252,911	507,440,848	583,556,975	671,090,521	771,754,099	887,517,214	1,020,644,797	1,173,741,516	1,349,802,743
Debt service		0	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706	\$693,900,706
Investor share		0	3,329,525,599	1,863,457,714	1,019,200,358	1,104,977,381	1,203,620,958	1,317,061,071	1,447,517,201	1,597,541,751	1,770,069,983	1,968,477,449	2,196,646,036	2,459,039,911
Investor share (%	6)		90%	43%	20%	19%	17%	16%	15%	15%	14%	13%	13%	13%
Share / Orig Capit	tal	0%	78%	44%	24%	26%	28%	31%	34%	38%	42%	46%	52%	58%
IRR to date		loss	(22%)	16%	28%	35%	39%	42%	44%	46%	47%	47%	48%	48%

#### **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.

## **Jobs Report**

1	Annual median household income (US\$)	\$50,000
2	CAPEX	
3	Average gross CAPEX salary (% of median HH)	125%
4	Average gross CAPEX salary	\$62,500
5	% of CAPEX as salary	15%
6	Years of CAPEX	2
7	# of CAPEX jobs	16,993
8	% of jobs that are manufacturing vs. construction	75%
9	Manufacturing jobs	12,745
10	Construction jobs	4,248
11	OPEX	
12	Average gross OPEX salary (% of median HH)	115%
13	Average gross OPEX salary	\$57,500
14	% of OPEX as salary	30%
15	<b>Operations and Maintenance jobs</b>	3,694