



Transit X presents a preliminary proposal for 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

# Kansas City to St. Louis, MO

This proposal is downloadable at transitx.com/proposals/Transit X for Kansas City to St Louis,MO.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

# 274 mile network with 2,138 pods

60% of population within a 60 min. walk

Nonstop service to 150 stops

267 miles @ 150 mph

## hour 40 min.



# Transit X proposes to build and operate a green, privately-financed micro-rail podway to carry passengers and freight for Kansas City to St. Louis that makes the Transit X service convenient to 60% 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.

## 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 operating by the end of 2019. We partner with local civil engineering and construction firms for the installation.

## **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 and have no 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.

## Sustainable

Transit X runs on 100% sustainable energy. The energy generated from solar panels on the track and stored within the poles is sufficient in most cases, but sustainable power contracts may used to buy and sell power to the grid. Transit X makes it possible to reduce the amount of impervious surfaces and increase green space by reducing the need for parking and roads. By replacing cars, Transit X has a negative carbon footprint.

## 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 higher use of mass transit and less use of personal vehicles.

## **De-risking Projects**

Transit X is working 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 would work with regional urban planning and construction firms who are familiar with permitting and applicable codes.

## Jobs and Workforce Development

Many jobs will be created to build a new transportation infrastructure, as well many new types of job will be created as transportation becomes more efficient. Transit X intends to build manufacturing and assembly plants around the world and locate them where Transit X is first deployed in a region. The vast majority of the construction jobs will be locally sourced. Preferential hiring would be given to those workers displaced by the transition to automated podways.

## **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\$49 million per year average over the first 10 years. For specifics, please see the "Taxes and

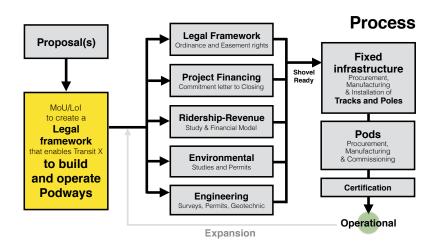
Fees" section of this proposal. These fees and taxes paid by Transit X enables lower taxes or more spending on public services.

## 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 general process for working with a government or commercial entity. We would refine a proposal that meets your needs, then ask for a letter stating you will create a legal framework for Transit X to build and operate a podway in your region. 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.

Whatever process you use to evaluate this proposal, Transit X is open to working with you on refining this proposal to meet your needs. 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 need a memorandum of understanding (example at <u>transitx.com/process/mou.html</u>) stating that you intend to pass an ordinance that enables our use of air rights along with an operating agreement.

The buildout of the network would be rolled out in phases, where a first phase could be a 15 to 30 km pilot.

#### **Other Resources**

The links below provide general information about Transit X:

- 2 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 Resolution (transitx.com/process/resolution.html)
- Operating Agreement (transitx.com/process/operating\_agreement.html)
- General Q & A (<u>transitx.com/QandA.html</u>)
- 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 Kansas City to St. Louis through better transportation.

Sincerely,

Mike Stanley Founder & Owner, Transit X



Telephone: +1 508-596-7024 (WhatsApp connected) Email: <u>mike@transitx.com</u> Zoom e-room: <u>https://zoom.us/j/8229009123</u> Website: <u>transitx.com</u> LinkedIn: <u>http://linkedin.com/in/mikestanleymit/</u> Skype: mikestanley49 WeChat: MikeTransitX Facebook Messanger: m.me/MikeStanleyMIT Twitter: <u>https://twitter.com/MikeTransitX</u> Mail: 1127 Commonwealth Ave #30, Boston, MA 02134 USA

## **Project Overview**



Transit X network length442 km274.7 milesPeople (resident-equivalent) in region Route density ratio (route length to service area)0.06Number of stops150Number of stops150Triple-speed route length430 kmWater crossing route length0 kmCost of fixed infrastructure per person\$4,723,034,988per day9% after 10 yearsMode share of travel on Transit X (3% after first year)9% after 10 yearsDistance traveled by passengers on Transit X, per year1,650,818,705 kmDistance traveled by passengers on Transit X, per year1,650,818,705 kmDaily potential energy generation with standard panels on tracks3,396 MWhSustainable energy use per day31 MWh1% of OPEXSize (rated power) of solar instaltion7,129 KWCost to generate sustainable energy at \$1,000 per kWh\$4,600 per day1% of OPEXDistance per passenger per day247 km153.2 milesDistance per passenger per day247 km153.2 milesSingle passenger fare for shared 82 km trip51.1 milesSingle passenger fare for shared 82 km trip54,000 per day54.100Passenger distance per trip (assuming 3 trips per day)82 km51.1 milesBoarding capacity54,000 per day1% of oregeep per oreconventer to transit %Single passenger fare for shared 82 km trip54,000 per day1% of oregeep per oreconventer to transit %Single passenger fare for shared 82 km trip54,000 per day1% of oregeep per oreconventer to transit %<
Route density ratio (route length to service area)       0.06         Number of stops       150         Triple-speed route length       430 km       267 miles         Water crossing route length       0 km       54,723,034,988         Cost of fixed infrastructure       \$4,723,034,988       54,723,034,988        per person       \$773       54,723,034,988         Mode share of travel on Transit X (3% after first year)       9% after 10 years       1,025,353,233 miles         Distance traveled by passengers on Transit X, per year       1,650,818,705 km       1,025,353,233 miles         Daily potential energy generation with standard panels on tracks       3,396 MWh       1% of max capacity         Size (rated power) of solar installation       7,129,261       55       55         Cost of buying sustainable energy at \$1,000 per kWh       \$3,066,550       55       55         Size (rated power) of solar installation       7,129,261       56,4600 per day       1% of OPEX         Daily passengers fare for shared 82 km Tip       18,342 customers       0% of the pop.         Distance per passenger per day       2,47 km       153.2 miles         Average distance per trip (assuming 3 trips per day)       8,2 km       51.1 miles         Single passenger fare for shared 82 km Tip       94,555 km       54,877 miles
Number of stops150Triple-speed route length430 km267 milesWater crossing route length0 km0 kmCost of fixed infrastructure\$4,723,034,988Starter Towel on Transit X (3% after first year)9% after 10 yearsDistance traveled by passengers on Transit X, per year1,650,818,705 km1,025,353,233 milesDaily potential energy generation with standard panels on tracks3,396 MWh1% of max capacitySustainable energy use per day31 MWh1% of max capacitySize (rated power) of solar installation7,129 KW18,3066,559Cost to generate sustainable energy at \$1.00 per kWh\$3,066,5595% of OPEXCost to generate sustainable energy at \$1.00 per kWh\$3,066,5595% of OPEXCost to generate sustainable energy at \$1.00 per kWh\$3,066,5595% of OPEXCost to generate sustainable energy at \$1.00 per kWh\$3,066,5595% of OPEXDaily passengers riding Transit X18,342customersDaily passengers riding Transit X18,342customersDistance per passenger per day247 km1532.2 milesSingle passenger for shared 82 km trip\$23.45561,837 milesBoarding capacity54,000passenger and 41% of customers)Boarding capacity54,000passenger and 43% of customers)Number of pods for peak demand8.6 and 2,858 people per podNumber of stance per pod per year565,406 kmTwo-layer pod garage area (1% of route with side-parking)2,352 milesCost of pods\$13,897,000<
Triple-speed route length430 km267 milesWater crossing route length0 km0 kmCost of fixed infrastructure\$4,723,034,988per person\$773Mode share of travel on Transit X (3% after first year9% after 10 yearsDistance traveled by passengers on Transit X, per year1,650,818,705 km1,025,353,233 milesDaily potential energy generation with standard panels on tracks3,396 MWh\$4,522,791 km2,809,187 milesDaily potential energy generation with standard panels on tracks3,396 MWh1% of max capacitySustainable energy use per day31 MWh1% of max capacitySize (rated power) of solar installation7,129 KW\$4,600 per day1% of OPEXCost of buying sustainable energy at \$1,000 per kWh\$7,129,261\$6,000 per day1% of OPEXDistance per passengers riding Transit X18,342 customers0% of the pop.Distance per passenger per day247 km1532 milesAverage distance per trip (assuming 3 trips per day)82 km51.1 milesSingle passenger fare for shared 82 km trip\$23.45\$61,837 milesBoarding capacity54,000passengers per day (102%) of expected and 1% of opepel coveneint to Transit X)\$61,837 milesNumber of pods for peak demand Number of customers per pod8.6 and 2,859 people per pod\$65,406 kmNumber of pods for peak demand Number of customers per pod8.6 and 2,859 people per pod\$65,406 kmTwo-layer pod garage area (1% of route with side-parking) Cost of pods\$13,857,000 is \$2 per person </td
Water crossing route length       0 km         Cost of fixed infrastructure       \$4,723,034,988        per person       \$773         Mode share of travel on Transit X (3% after first year)       9% after 10 years         Distance traveled by passengers on Transit X, per year       1,650,818,705 km       1,025,353,233 miles         Distance traveled by passengers on Transit X, per year       1,650,818,705 km       1,025,353,233 miles         Daily potential energy generation with standard panels on tracks       3,396 MWh       \$4,522,791 km       2,809,187 miles         Sustainable energy use per day       31 MWh       1% of max capacity       \$3,066,559          Cost to generate sustainable energy at \$1,000 per kWh       \$3,066,559           Cost to generate sustainable energy at \$1,000 per kWh       \$7,129,261           Cost of puying sustainable energy at \$0.15 per kWh       \$4,600 per day       1% of OPEX          Distance per passenger fiding Transit X       18,342 customers       0% of the pop.          Distance per trip (assuming 3 trips per day)       82 km       51.1 miles          Single passenger fare for shared 82 km trip       \$23.45            Passenger distance traveled during peak hour       904,558 km       \$61,837 miles
Cost of fixed infrastructure per person\$4,723,034,988per person\$773Mode share of travel on Transit X (3% after first year)9% after 10 yearsDistance traveled by passengers on Transit X, per year per day1,650,818,705 km1,025,353,233 milesDaily potential energy generation with standard panels on tracks Sustainable energy use per day31 MWh1% of max capacityEnergy storage capital cost for 1 day(s) of supply at \$100 per kWh Size (rated power) of solar installation Daily passengers riding Transit X7,129 KW57,129,261Cost to generate sustainable energy at \$1.05 per kWh Daily passengers riding Transit X84,600 per day1% of OPEXDistance per passenger per day Distance per passenger per day247 km153.2 milesSingle passenger fare for shared 82 km trip Passenger distance traveled during peak hour Distance per pod per year904,558 km561,837 milesNumber of pods for peak demand Dustance per pod per year2,138 pods at 9% mode share2,352 m²0.1% of caprarkingNumber of garage area (1% of route with side-parking) Cost of pods Capital cost of energy generation and storage\$13,254,566 is \$2 per person0.1% of car parkingProject Finances\$13,254,566 is \$2 per person\$13,254,566 is \$2 per person\$14,020 person
per person\$773Mode share of travel on Transit X (3% after first year)9% after 10 yearsDistance traveled by passengers on Transit X, per year1,650,818,705 km1,025,353,233 millerper day4,522,791 km2,809,187 milesDaily potential energy generation with standard panels on tracks3,396 kWh1% of max capacitySustainable energy use per day31 MWh1% of max capacitySize (rated power) of solar installation7,129 kW\$3,066,559Cost to generate sustainable energy (at \$1,000 per kWh\$7,129,2611% of OPEXCost of opuing sustainable energy at \$0.15 per kWh\$4,600 per day1% of OPEXDistance per passenger per day247 km153.2 milesAverage distance per trip (assuming 3 trips per day)82 km\$1.1 milesSingle passenger fare for shared 82 km trip904,558 km\$61,837 milesPassenger distance traveled during peak hour090,558 km\$61,837 milesBoarding capacity54,000 passengers per bour (29% of expected and 1°Number of pods for peak demand2,138 pods at 9% mcce shareNumber of customers per pod per year565,406 kmTwo-layer pod garage area (1% of route with side-parking)2,352 m²0.1% of car parkingCost of pods\$13,897,000is \$2 per personCapital cost of energy generation and storage\$13,897,000is \$2 per personForject Finances\$13,254,566is \$2 per person
Mode share of travel on Transit X (3% after first year)9% after 10 yearsDistance traveled by passengers on Transit X, per year1,650,818,705 km1,025,353,233 milesper day4,522,791 km2,809,187 milesDaily potential energy generation with standard panels on tracks3,396 MWh3,396 MWhSustainable energy use per day31 MWh1% of max capacitySize (rated power) of solar installation7,129 KW5,200,100 Per kWhCost to generate sustainable energy (at \$1,000 per kWh\$7,129,2616,000 Per dayCost of buying sustainable energy at \$0.15 per kWh\$4,600 per day1% of OPEXDaily passengers riding Transit X18,342 customers0% of the pop.Distance per passenger per day247 km153.2 milesAverage distance per trip (assuming 3 trips per day)82 km51.1 milesSingle passenger fare for shared 82 km trip904,558 km561,837 milesBoarding capacity54,000 passengers per day24,000 passengers per day1000 per kWBoarding capacity54,000 passenger day (102%) of expected and to of people convenient to Transit X)54,000 passengers per day24,138 pods at 9% mode shareNumber of customers per pod8.6 and 2,859 people per pod8.6 and 2,859 people per pod8.6 and 2,859 people per podNumber of customers per pod per year565,406 km2,352 m²0.1% of car parkingCost of pods613,897,000 is \$2 per person\$13,254,566 is \$2 per personCapital cost of energy generation and storage\$13,254,566 is \$2 per person
Distance traveled by passengers on Transit X, per year per day1,650,818,705 km1,025,353,233 milesDaily potential energy generation with standard panels on tracks3,396 MWh2,809,187 milesDaily potential energy generation with standard panels on tracks3,396 MWh1% of max capacitySustainable energy use per day31 MWh1% of max capacityEnergy storage capital cost for 1 day(s) of supply at \$100 per kWh\$3,066,5591Size (rated power) of solar installation7,129 KW1% of OPEXCost to generate sustainable energy (at \$1,000 per kW)\$7,129,2611Cost of buying sustainable energy (at \$1,000 per kW)\$4,600 per day1% of OPEXDaily passengers riding Transit X18,342 customers0% of the pop.Daily passenger free for shared 82 km trip282 km51.1 milesSingle passenger fare for shared 82 km trip282.45561,837 milesSingle passenger distance traveled during peak hour904,558 km561,837 milesDatomper of pods for peak demand2,138 pods at 9% mode shareNumber of pods for peak demand2,138 pods at 9% mode shareNumber of customers per pod per year565,406 kmTwo-layer pod garage area (1% of route with side-parking)2,352 m²0.1% of car parkingCapital cost of energy generation and storage\$13,897,000 is \$2 per personCapital cost of energy generation and storage\$13,254,566 is \$2 per person
Lickarios introductory paceongoine unitation, per day per day4,522,791 km2,809,187 milesDaily potential energy generation with standard panels on tracks Sustainable energy use per day31 MWh1% of max capacityEnergy storage capital cost for 1 day(s) of supply at \$100 per kWh Size (rated power) of solar installation3,129 KW\$3,066,559Cost to generate sustainable energy (at \$1,000 per kW)\$7,129,261For Dex (1000 per day)1% of OPEXCost of buying sustainable energy at \$0.15 per kWh Daily passengers riding Transit X\$1,8,342 customers0% of the pop.Average distance per trip (assuming 3 trips per day)82 km\$1.1 milesSingle passenger fare for shared 82 km trip Passenger distance traveled during peak hour904,558 km\$61,837 milesBoarding capacity54,000 passengers per hour (294% of customers)1000 passengers per hour (294% of customers)1000 passengers per hour (294% of customers)Number of pods for peak demand Distance per pod per year2,438 pods at 9% mode share10% of car parkingTwo-layer pod garage area (1% of route with side-parking) Cost of pods\$13,897,000 is \$2 per person0.1% of car parkingCapital cost of energy generation and storage\$13,254,566 is \$2 per person\$13,254,566 is \$2 per personProject Finances\$13,254,566 is \$2 per person\$13,254,566 is \$2 per person
Daily potential energy generation with standard panels on tracks3,396 MWhSustainable energy use per day31 MWh1% of max capacityEnergy storage capital cost for 1 day(s) of supply at \$100 per kWh\$3,066,559Size (rated power) of solar installation7,129 KWCost to generate sustainable energy at \$1,000 per kWh\$4,600 per day1% of OPEXDaily passengers riding Transit X18,342 customers0% of the pop.Distance per passenger per day247 km153.2 milesSingle passenger fare for shared 82 km trip\$23.4551.1 milesPassenger distance traveled during peak hour904,558 km51,837 milesBoarding capacity54,000 passengers per day24,000 passengers per day1% of customers)Number of pods for peak demand2,138 pods at 9% mode share1% of customers)Number of customers per pod8.6 and 2,859 people per pod2,352 m²0.1% of car parking)Cost of pods\$13,897,000 is \$2 per person2,352 m²0.1% of car parking)Cost of pods\$13,897,000 is \$2 per person\$13,897,000 is \$2 per personProject Finances\$13,807,000 is \$2 per person\$13,897,000 is \$2 per person
Sustainable energy use per day31 MWh1% of max capacityEnergy storage capital cost for 1 day(s) of supply at \$100 per kWh Size (rated power) of solar installation\$3,066,559Size (rated power) of solar installation7,129 KWCost to generate sustainable energy (at \$1,000 per kWh Daily passengers riding Transit X\$7,129,261Daily passengers riding Transit X18,342 customers0% of the pop.Distance per passenger per day247 km153.2 milesAverage distance per trip (assuming 3 trips per day)82 km\$1.1 milesSingle passenger fare for shared 82 km trip Passenger distance traveled during peak hour904,558 km\$61,837 milesBoarding capacity54,000 passengers per day1% of customers)1% of customers)Number of pods for peak demand Distance per pod per year2,138 pods at 9% mode share8.6 and 2,859 people per podSingle passenger area (1% of route with side-parking) Cost of pods2,352 m²0.1% of car parkingPassenger distance traveled area and if of people corvenient of carparking Cost of pods2,352 m²0.1% of car parkingProject FinancesCost of pods\$13,897,000 is \$2 per person\$2 per person
Energy storage capital cost for 1 day(s) of supply at \$100 per kWh Size (rated power) of solar installation Cost to generate sustainable energy at \$1,000 per kW) Cost of buying sustainable energy at \$0,15 per kWh Daily passengers riding Transit X Distance per passenger per day Average distance per trip (assuming 3 trips per day) Single passenger fare for shared 82 km trip Passenger distance traveled during peak hour Passenger distance traveled during peak hour Boarding capacity Number of pods for peak demand Number of customers per pod Distance per pod per year Two-layer pod garage area (1% of route with side–parking) Capital cost of energy generation and storage <b>Project Finaances</b>
Size (rated power) of solar installation7,129 KWCost to generate sustainable energy (at \$1,000 per kW)\$7,129,261Cost of buying sustainable energy at \$0.15 per kWh\$4,600 per day1% of OPEXDaily passengers riding Transit X18,342 customers0% of the pop.Distance per passenger per day247 km153.2 milesAverage distance per trip (assuming 3 trips per day)82 km51.1 milesSingle passenger fare for shared 82 km trip\$23.45561,837 milesPassenger distance traveled during peak hour904,558 km561,837 milesBoarding capacity54,000 passengers per hour (294% of customers)54,000 passengers per hour (294% of customers)Number of pods for peak demand2,138 pods at 9% mode share8.6 and 2,859 people per podNumber of customers per pod per year565,406 km2,352 m²0.1% of car parkingTwo-layer pod garage area (1% of route with side-parking)2,352 m²0.1% of car parkingCost of pods\$13,897,000 is \$2 per person\$13,897,000 is \$2 per personProject Finances\$13,254,566 is \$2 per person
Cost to generate sustainable energy (at \$1,000 per kW)\$7,129,261Cost of buying sustainable energy at \$0.15 per kWh\$4,600per day1% of OPEXDaily passengers riding Transit X18,342customers0% of the pop.Distance per passenger per day247km153.2 milesAverage distance per trip (assuming 3 trips per day)82km51.1 milesSingle passenger fare for shared 82 km trip\$23.45\$11.1 milesPassenger distance traveled during peak hour904,558km\$61.837 milesBreakeven18,640customers per day (102% of expected and 1 of people convenient to Transit X)\$4,000passengers per hour (294% of customers)Number of pods for peak demand2,138pods at 9% mode shareand 2,859 people per podNumber of customers per pod per year565,406km\$25.900Two-layer pod garage area (1% of route with side-parking)2,352m²0.1% of car parkingCost of pods\$13,897,000is \$2 per person\$2.900Cost of pods\$13,254,566is \$2 per person\$2.900Project Finances\$11.254,566\$2.900\$2.900
Cost of buying sustainable energy at \$0.15 per kWh\$4,600per day1% of OPEXDaily passengers riding Transit X18,342customers0% of the pop.Distance per passenger per day247km153.2 milesAverage distance per trip (assuming 3 trips per day)82km51.1 milesSingle passenger fare for shared 82 km trip\$23.45\$\$Passenger distance traveled during peak hour904,558km\$61,837 milesBreakeven18,6400customers per day (102% of expected and 1 of people convenient to Transit X)\$Boarding capacity54,000passengers per hour (294% of customers)Number of pods for peak demand2,138pods at 9% mc eshareNumber of customers per pod8.6and 2,859 people per podDistance per pod per year565,406kmTwo-layer pod garage area (1% of route with side-parking)2,352m²0.1% of car parkingCost of pods\$13,897,000is \$2 per person\$\$Capital cost of energy generation and storage\$13,254,566is \$2 per person\$Project Finances\$\$\$\$\$State per pol per
Cost of buying sustainable energy at \$0.15 per kWh\$4,600per day1% of OPEXDaily passengers riding Transit X18,342customers0% of the pop.Distance per passenger per day247km153.2 milesAverage distance per trip (assuming 3 trips per day)82km51.1 milesSingle passenger fare for shared 82 km trip\$23.45\$\$Passenger distance traveled during peak hour904,558km\$61,837 milesBreakeven18,6400customers per day (102% of expected and 1 of people convenient to Transit X)\$Boarding capacity54,000passengers per hour (294% of customers)Number of pods for peak demand2,138pods at 9% mc eshareNumber of customers per pod8.6and 2,859 people per podDistance per pod per year565,406kmTwo-layer pod garage area (1% of route with side-parking)2,352m²0.1% of car parkingCost of pods\$13,897,000is \$2 per person\$\$Capital cost of energy generation and storage\$13,254,566is \$2 per person\$Project Finances\$\$\$\$\$State per pol per
Daily passengers riding Transit X18,342customers0% of the pop.Distance per passenger per day247km153.2 milesAverage distance per trip (assuming 3 trips per day)82km51.1 milesSingle passenger fare for shared 82 km trip\$23.45561.837 milesPassenger distance traveled during peak hour904,558km561.837 milesPassenger distance traveled during peak hour904,558customers per day (102% of expected and 1 of people convenient to Transit X)561.837 milesBoarding capacity54,000passengers per hour (294% of customers)passengers per hour (294% of customers)pods at 9% mode shareNumber of pods for peak demand2,138pods at 9% mode shareend 2,859 people per podNumber of customers per pod per year565,406kmend 2,859 people per podTwo-layer pod garage area (1% of route with side–parking) Cost of pods\$13,897,000is \$2 per personCapital cost of energy generation and storage\$13,254,566is \$2 per personProject Financesstorage areastoragestorage
Distance per passenger per day247 km153.2 milesAverage distance per trip (assuming 3 trips per day)82 km51.1 milesSingle passenger fare for shared 82 km trip\$23.45561,837 milesPassenger distance traveled during peak hour904,558 km561,837 milesBreakeven18,640customers per day (102% of expected and 1 of people convenient to Transit X)Boarding capacity54,000passengers per hour (294% of customers)Number of pods for peak demand2,138pods at 9% mode shareNumber of customers per pod8.6and 2,859 people per podDistance per pod per year565,406kmTwo-layer pod garage area (1% of route with side–parking)2,352m²0.1% of car parkingCost of pods\$13,897,000is \$2 per personis \$2 per personProject Financesstorage\$13,254,566is \$2 per person
Average distance per trip (assuming 3 trips per day)82 km51.1 milesSingle passenger fare for shared 82 km trip\$23.45561,837 milesPassenger distance traveled during peak hour904,558km561,837 milesBreakeven18,640customers per day (102% of expected and 1 of people convenient to Transit X)customers per day (102% of expected and 1 of people convenient to Transit X)Boarding capacity54,000passengers per hour (294% of customers)Number of pods for peak demand2,138pods at 9% mode shareNumber of customers per pod8.6and 2,859 people per podNumber of customers per pod per year565,406kmTwo-layer pod garage area (1% of route with side–parking)2,352m²0.1% of car parkingCost of pods\$13,897,000is \$2 per personis \$2 per personBroject FinancesFinancesstaragestaragestarage
Single passenger fare for shared 82 km trip Passenger distance traveled during peak hour\$23.45Passenger distance traveled during peak hour904,558 km561,837 milesBreakeven Boarding capacity18,640customers per day (102% of expected and 1 of people convenient to Transit X)Boarding capacity54,000passengers per hour (294% of customers)Number of pods for peak demand Number of customers per pod8.6 and 2,859 people per podNumber of stance per pod per year565,406Two-layer pod garage area (1% of route with side-parking) Cost of pods2,352Capital cost of energy generation and storage\$13,254,566Is 2 per person\$13,254,566Project FinancesImage: Stance of the stance of t
Passenger distance traveled during peak hour904,558km561,837 milesBreakeven18,640customers per day (102% of expected and 1 of people convenient to Transit X)Boarding capacity54,000passengers per hour (294% of customers)Number of pods for peak demand2,138pods at 9% mode shareNumber of customers per pod8.6and 2,859 people per podNumber of customers per pod8.6and 2,859 people per podDistance per pod per year565,406kmTwo-layer pod garage area (1% of route with side-parking)2,352m²0.1% of car parkingCost of pods\$13,897,000is \$2 per personis \$2 per personCapital cost of energy generation and storage\$13,254,566is \$2 per personProject FinancesState state sta
Breakeven Boarding capacity18,640customers per day (102% of expected and 1 of people convenient to Transit X)Boarding capacity54,000passengers per hour (294% of customers)Number of pods for peak demand Number of customers per pod Distance per pod per year8.6and 2,859 people per podTwo-layer pod garage area (1% of route with side–parking) Cost of pods2,352m²0.1% of car parkingCapital cost of energy generation and storage\$13,254,566is \$2 per personProject FinancesImage: State S
Boarding capacity       54,000       passengers per hour (294% of customers)         Number of pods for peak demand       2,138       pods at 9% mode share         Number of customers per pod       8.6       and 2,859 people per pod         Distance per pod per year       565,406       km         Two-layer pod garage area (1% of route with side–parking)       2,352       m²       0.1% of car parking         Cost of pods       \$13,897,000       is \$2 per person       is \$2 per person         Project Finances       Finances       bis 2 per person       bis 2 per person
Number of pods for peak demand Number of customers per pod2,138pods at 9% mode shareNumber of customers per pod8.6and 2,859 people per podDistance per pod per year565,406kmTwo-layer pod garage area (1% of route with side–parking) Cost of pods2,352m²0.1% of car parkingCost of pods\$13,897,000is \$2 per personCapital cost of energy generation and storage\$13,254,566is \$2 per personProject FinancesImage: State
Number of customers per pod       8.6       and 2,859 people per pod         Distance per pod per year       565,406       km         Two-layer pod garage area (1% of route with side–parking)       2,352       m²       0.1% of car parking         Cost of pods       \$13,897,000       is \$2 per person         Capital cost of energy generation and storage       \$13,254,566       is \$2 per person
Distance per pod per year       565,406 km         Two-layer pod garage area (1% of route with side–parking)       2,352 m²       0.1% of car parking         Cost of pods       \$13,897,000 is \$2 per person         Capital cost of energy generation and storage       \$13,254,566 is \$2 per person
Two-layer pod garage area (1% of route with side-parking)       2,352 m²       0.1% of car parking         Cost of pods       \$13,897,000 is \$2 per person         Capital cost of energy generation and storage       \$13,254,566 is \$2 per person         Project Finances       Vertical storage
Cost of pods       \$13,897,000 is \$2 per person         Capital cost of energy generation and storage       \$13,254,566 is \$2 per person         Project Finances       \$13,254,566 is \$2 per person
Capital cost of energy generation and storage \$13,254,566 is \$2 per person Project Finances
Project Finances
Project cost \$10,742,465 per km US\$17.3M per mi.
Equity \$1,425,055,966
Private debt financing \$3,325,130,587
Data antina (nativation) \$400,700,500
Debt service (per year) \$498,769,588
Debt service (per year)\$498,769,588Yearly fees and taxes (US\$10 per capita)\$61,324,366
Yearly fees and taxes (US\$10 per capita) \$61,324,366 OPEX + Debt service + Tax + Fees \$797,603,282
Yearly fees and taxes (US\$10 per capita)       \$61,324,366         OPEX + Debt service + Tax + Fees       \$797,603,282         Project costs — per person       \$777
Yearly fees and taxes (US\$10 per capita)       \$61,324,366         OPEX + Debt service + Tax + Fees       \$797,603,282         Project costs — per person       \$777         Number of motor vehicles displaced       165,082 motor vehicles
Yearly fees and taxes (US\$10 per capita)       \$61,324,366         OPEX + Debt service + Tax + Fees       \$707,603,282         Project costs - per person       \$777         Number of motor vehicles displaced       165,082 motor vehicles         Yearly cost of cars displaced - per person       \$243
Yearly fees and taxes (US\$10 per capita)\$61,324,366OPEX + Debt service + Tax + Fees\$707,603,262Project costs - per person\$777Number of motor vehicles displaced165,082 motor vehiclesYearly cost of cars displaced - per person\$243Operating costs per passenger-km\$0.14
Yearly fees and taxes (US\$10 per capita)\$61,324,366OPEX + Dobt service + Tax + Feed\$707,603,282Project costs - per person\$777Number of motor vehicles displaced165,082 motor vehiclesYearly cost of cars displaced - per person\$243Operating costs per passenger-km\$0.14Full costs per passenger-km\$0.48
Yearly fees and taxes (US\$10 per capita)\$61,324,366OPEX + Debt service + Tax + Feed5707,003,202Project costs - per person\$777Number of motor vehicles displaced165,082 motor vehiclesYearly cost of cars displaced - per person\$243Operating costs per passenger-km\$0.14

## Project Overview p. 2



## Impact of proposed network

3 mph 6 miles

6,211 miles

150 mph

247 sf

1	Reduction in GHG emissions (metric tons CO2-eq)
2	Estimated cost to maintain public roadways
3	Reduced waste products
4	Travel time saved (non-stop travel and congestion)
5	Cost savings from reduced car ownership
6	Increase in household income (from time savings and car costs)
7	Reported injuries avoided
8	Lives saved (from safety)
9	Land freed from parking (938 acres)
12	Temperature reduction (from heat island effect & GHG reductions)
11	Health care savings (from pollution, injuries)

## **Model Inputs**

15	Ratio of road length to track length	4		
16	Walking speed		km/h	3 mph
17	Width of convenient swath along track	9.80	km	6 mile
18	Fixed cost per km. Solar+storage not included.	\$2,790,000		
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		6,211
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	23,598		
27	Average dwell time during peak hour		seconds	
28	% of pods traveling on route with highest demand	18%	lues (le	450
29	Average speed of pod		km/h	150 m
30	Average # of trips for a daily customer		per day	
31 32	Average passengers per pod during peak hours Average passengers per pod		passengers	
32	8 i 8 i i		passengers	
~~	Average discount per passenger	18%	pagagara	
33	Maximum passengers per pod		passengers	
34	Empty pods: Percentage non-revenue	25%		
35	Ex-Factory cost per pod	\$5,000		
36	Worldwide Median Income per Household (US\$)	10,000		
37 38	Average number of residents per household Base fare per km	2.3 \$0.48		
	•	\$0.48		
39	(per mile) O&M as % of project cost	٥ <i></i> 5%		
40	Percentage debt financed	70%		
41 42	Length of loan/debt		years	
43	Interest rate for debt	5%	youro	
43	kg CO2 emissions per liter of gasoline	2.37		
45	Monetary value of 1 hour personal time (USD)	\$13.75		
46	Eat. roadway maintenance per year per km	\$51,000		
47	Area of one parking lot space		m <sup>2</sup>	247 st
48	Commercial income of land (annual)		per m <sup>2</sup>	
49	Distance from roadway that is convenient	2.97		
50	Stops per km	0.3		
51	Boarding capacity per stop	360	pph	
52	Solar panel area per meter of track	2.0		
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	m cols/km:	44
58	Energy storage cost	\$100	per kWh	
59	Energy storage capacity		days	
50	Area of parked pod	2.20	-	
51	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%		
		/•		

163,018	MTCO2-eq annually
\$124,033,665	annually
26,454	metric tons annually
4,375	hrs/person annually
\$13,009	per person annually
133%	
1,024	annually
10	annually
3,796,883	m <sup>2</sup>
0.5 to 2	°C
High	

## Model Inputs (continued)

68	Name of region or project	Kansas City to St. Lou
69	Currency name	
70	Equal to US\$1	1
71	Sustainable energy/electricity generation & storage as	CAPEX
72	Land area of region (sq. km)	180,560
73	Number of residents in region	6,113,532
74	% travel within region	30%
75	% of land area served by roads	4%
76	Coverage: % of pop. convenient (60 min walk) to Transit X	60%
77	Annual median household income (US\$)	\$55,000
78	Convenient walk time to stop (min)	60
79	Triple-speed route length (km)	430
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 Factor	30

## Pod & Car

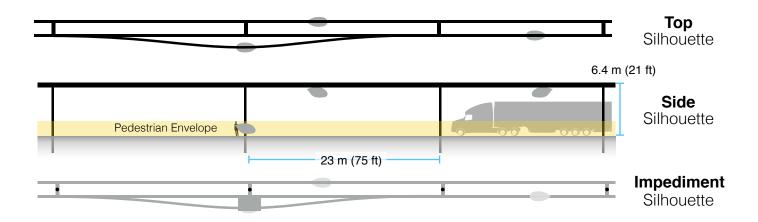
		Pod	Car
87	Service life (years)	20	12
88	Full cost of vehicle per year	\$200	\$9,000
89	Public cost to maintain infrastructure (per km)	\$0	\$100,000
90	Energy Efficiency in MPGe	3564	24
91	Energy Efficiency in liters/100km	0.07	9.8
92	Energy used (Watt-hours/km)	9	1375
93	mass of CO2 per vehicle per 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 82 km trip	68	308
97	Fare/cost per km	\$0.48	\$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 to government easement owners for all fees and taxes. When on a private easement, 4% is paid to the private owner and 1% to the government. A minimum payment is based on the Footprint and the Transit X Commercial Rate (TXCR).

1	Government Fees and Ta	ax rate	(for calculating minimums)	)
2	Total commercial land (estimated)	722,240,000	m <sup>2</sup>	178,469 acres
3	Total commercial gov't revenue (US\$)	\$794,464,000		
4	TXCR (Transit X Commercial Rate)	\$1.10	per m <sup>2</sup>	
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.	\$11.84	per sf	
6				
7	Private Easement Fees			
8	4% of gross revenue	\$27.74	per route- meter	\$8.46 per route-foot
9	Minimum per year	\$1.63	per route- meter	<b>\$0.50</b> per route-foot
10	Government Fees a	and Taxes		
11	% of route on government easements	98%		
12	5% on government easements	\$60,097,878		
13	1% on private easements	\$245,297		
14	Total gov't fees and taxes	\$60,343,176	per year	
16	per resident	\$10		
15	with a minimum of	\$722,901	per year	

## Footprint calculations for minimum fee



1	Footprint Calculations	Metric	Imperial
2	Track width	<u>0.30</u> m	11.8 inches
3	Track height	<u>0.60</u> m	23.6 inches
4	Post diameter	<u>0.3</u> m	11.8 inches
5	Post cross section	<u>0.07</u> m <sup>2</sup>	0.8 sf
6	Stop landing area	<u>3.75</u> m²	40.4 sf
7	width	<u>1.5</u> m	59.1 inches
8	length	<u>2.5</u> m	98.4 inches
9	Ramp length	<u>21</u> m	68.9 feet
10	Typical Span	<u>23</u> m	75.5 feet
11	Number of posts per unit length	<u>43.5</u> poles per km	70.0 poles per mile
12	Post height	<u>6</u> m	19.7 feet
13			
14	Single track	1022.1 m <sup>2</sup>	10998 sf
15	Area of Side Silhouette	678.3 m <sup>2</sup>	7298 sf
16	Area of Top Silhouette	313.1 m <sup>2</sup>	3369 sf
17	Impediment Area (adjusted)	30.7 m <sup>2</sup>	331 sf
18			
19	Dual track	1322.1 m <sup>2</sup>	14226 sf
20	Area of Side Silhouette	678.3 m <sup>2</sup>	7298 sf
21	Area of Top Silhouette	613.1 m <sup>2</sup>	6597 sf
22	Impediment Area (adjusted)	30.7 m <sup>2</sup>	331 sf
23			
24	Stop	82.1 m <sup>2</sup>	883 sf
25	Area of Side Silhouette	25.2 m <sup>2</sup>	271 sf
26	Area of Top Silhouette	19.4 m <sup>2</sup>	208 sf
27		37.5 m <sup>2</sup>	404 sf
27	Impediment Area (adjusted)	37.3 m²	404 Sf
28			
29	Stops with dedicated landing areas	2 stops per km	3.2 stops per mile
30	% of dual track	100%	
31			
32	Average area per unit length	1,486 m <sup>2</sup> per route-k	m 25,793 sf per route-mile
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	



Summary

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

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

			_						Trip	o Le	eng	th	
All prices in USD				1 mile					6 mile				25 mile
Transit X				<b>0.57</b> to 0.95 2 min., 3.6x faster					<b>2.81</b> to 4.72 8 min., 3.6x faster				<b>10.80</b> to 18.41 33 min., 3.4x faster
Public transit average					3.	19			5.07				7.44
nodes	Тах	i		2	<b>4.</b> to 6 n	<b>42</b> ninute	S			<b>19.2</b> 30 m		es	<b>74.88</b> 30 to 120 minutes
Common public modes	Jber/L	_yft		2	<b>3.</b> to 6 n	<b>37</b> ninute	S			<b>13.8</b> 30 m		es	<b>53.23</b> 30 to 120 minutes
d uou	ublic	Bus		31	<b>2.</b> to 12 i	<b>57</b> minute	es		<b>2.57</b> 15 to 60 minutes			tes	<b>3.94</b> 60 to 240 minutes
Train				<b>3.85</b> 2 to 12 minutes				8 to	<b>4.5</b>		es	<b>7.10</b> 30 to 240 minutes	
Personal car				2 t	<b>3.</b> (	65 ninute	es		<b>1</b> 8 to 3	<b>1</b> .4 30 n		-	<b>40.53</b> 30 to 120 minutes
Travel mode	Avg. Speed km/h	Low Speed km/h	High speed km/h	Base	Includ es km	Over per-km		Max Dist. km	Time cost per min	6%	shar 70% 10		* All numbers on mode shares, speeds, and cos are rough estimates
Тахі	30	20	80	2.57	1		0.5	100	1.14	5%	4%	1%	
Uber/Lyft	30	20	80	2.05	1	1.03	0.5	100	0.57	10%	10%	2%	
Public Bus	15	10	40	2.57	20	0.07	0.5	50	0	50%	50%	40%	
Train	30	10	80	3.85	2	0.09	2	100	0	35%	36%	57%	
Transit X	72	72	72	0	0	0.29	0.1	50	0	-	-	-	

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.

0.23

0.86 0.1 400

30

20

Personal car

1.71

0

80



## **Fair Fare Formula**

## Fare rates are updated annually using this formula

	n anolova			
	Formula Name	Value	Units	Description of the value or model input
1	GlobalIncome	10.000	USD	Global median household income. Updated annually based on most recent
1	Giobalificome	10,000	050	standard published data.
2	AllTravel	23,000	km	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	0.09	USD/km	Global rate: Globalincome * PercentincomeForTransport / AliTravel
5	IncomeFirst	\$55,000	USD	Median household income at first stop (per person per day). External input.
6	IncomeDest	\$82,500	USD	Based on reliable public data source updated annually. Median household income at destination per trip. External input. Based on
7	RegionalRate	0.48	USD/km	reliable public data updated annually. Regional rate based on median income:
				MedianIncomeFirst * PercentIncomeForTransport / AllTravel
8	UnderIncomeRate	0.00	USD/km	Under global income adjustment: if (RegionalRate < GlobalRate, GlobalRate - RegionalRate, 0)
9	NominalRate	0.48	USD/km	Nominal rate: RegionalRate + UnderIncomeRate
10	RegionalFactor	1.00		Regional Fare Factor. Negotiated upfront to make network financially viable.
11	AdjustedRate	0.48	USD/km	Regional adjusted rate: NominalRate * RegionalFactor
13	Population	6,113,532		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	1,650,818,705	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	1%		Percent of Total Travel Per Capita on Transit X: PassengerTravel / (Population x AllTravel)
16	BaseRate	0.48	USD/km	Base rate for single-passenger pod (without discounts) (1 - UsageMaxDiscount x min(1,ModeShare)) x AdjustedRate
17	SpecialRateFactor	2.20		Rate factor for water crossings or high-speed links. Global constant.
10	Cracial Pass Pata			Base rate for high-speed travel or water crossings:
18	SpecialBaseRate	1.05	USD/km	BaseRate * SpecialRateFactor
19	DistanceDiscount	40%		Distance discount at max distance. Global constant.
20	MaxDistanceDiscount	500	km	Max distance discount. Global constant.
21	DistanceDiscountPerKm	0.000380	USD/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	0.38	USD/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	0.38	USD/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	0.29	USD/km	Rate for shared compartment BaseRate x (1 - SharedCompartmentDiscount)
29	SingleOccupancyMaxDistance	0.32	USD/km	Rate for 500 km in single-passenger pod. Rate for a Senior taking a 500 km trip in a shared compartment.
30	Senior + SharedCompartmentRate	0.14	USD/km	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	1,221,605,842	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	475,997,664	USD	Annual revenue from all travel under base rate. Audited value from operational data.
35	AverageDiscount	18%		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	18%		Cap on passenger travel distance at market rate:
0.0		000 404 407	luna	AverageDiscount x MarketFactor Cap on passenger travel distance at market rate:
38	MarketTravelCap	220,461,127	km	DistanceBase x MarketRateCap

## **Project Summary**

Project Description	A fully-automated, solar-powered, micro- rail network. A transportation utility.					
Project type	<b>Privately-funded Public Transit</b> Design, Build, Finance, Own, Operate, Maintain (DBFOOM)					
Project cost	US\$4.75 billion					
Cost to Gov't	\$0					
Structure	Privately financed equity and debt					
Debt term	10 years @ 5%					
Equity terms	<ul><li>A waterfall profit distribution with:</li><li>90/10 split until Return of Capital,</li><li>then 50/50 until Target IRR met</li><li>then 10/90 onwards</li></ul>					
Taxes & Fees	\$60,343,176 per year					
Benefits to society and environment	Extremely high					

## **Financials**

(US\$ in millions)

	Year 1	Total Years 1-12
Gross Revenues	405	11,746
Taxes and fees	20	587
Debt service	\$431	\$4,306

## 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

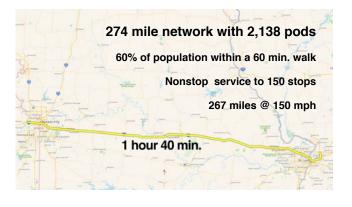




Transit X presents a preliminary proposal for privately-financed, solarpowered public transit network — a fleet of fully-autonomous, shared, electric, 4-passenger vehicles (pods) on a local and regional podway

## Kansas City to St. Louis, MO

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
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
<b>Operations &amp; Maint</b>	Yes	Yes
Utility relocation	Per project	Agreements

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

## 12-year Pro Forma



## **Model Inputs and Assumptions**

Route length (km)	442		
Starting number of pods	706		
Projected revenue growth	15%		
Project Cost (Privately funded)	\$4,750,186,554		
% Debt financed	70%		
Debt	\$3,325,130,587		
Equity	\$1,425,055,966		
Capital return per year	\$285,011,193		
Debt payment (per year)	\$430,619,623		

#### Travel per year per pod (km) 565,406

- Revenue per vehicle-km (US\$) 1.01
  - OPEX as % of project cost 5%
    - Debt Interest rate 5%
      - Debt term (yrs) 10
- Years to return equity capital 5
- Profit share when below capital return 90%
  - Profit share when below Target IRR 50%
  - Profit share when above Target IRR 10%

#### Pro Forma

Y	ears O		1	2	3	4	5	6	7	8	9	10	11	12
Revenue		0	405,004,698	465,755,402	535,618,713	615,961,520	708,355,748	814,609,110	936,800,476	1,077,320,548	1,238,918,630	1,424,756,424	1,638,469,888	1,884,240,371
5% RoW+tax+fee	• 0	%	20,250,235	23,287,770	26,780,936	30,798,076	35,417,787	40,730,455	46,840,024	53,866,027	61,945,931	71,237,821	81,923,494	94,212,019
Debt service		0	\$430,619,623	\$430,619,623	\$430,619,623	\$430,619,623	\$430,619,623	\$430,619,623	\$430,619,623	\$430,619,623	\$430,619,623	\$430,619,623	0	0
Investor balance	•		\$1,425,055,966	-\$1,425,055,966	-\$1,425,055,966	-\$1,425,055,966	-\$1,425,055,966	-\$1,425,055,966	-\$1,425,055,966	-\$1,417,595,271	-\$1,376,718,999	-\$1,297,414,815	-\$1,144,150,238	-\$980,721,478

#### **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 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.