

Transport2030: Scenario Modelling

Jenson Varghese and Beth Schuck



BETTER TRANSPORT • BETTER PLACES • BETTER CHOICES

Why?

How this all started

Our Mission

The 1point5 Project aims to focus and amplify the voices of those working towards a 1.5°C world. This not-for-profit is generously supported by The Tindall Foundation and Phillip Mills and other generous souls who have contributed time and skills.



**“We stand for well connected,
vibrant and liveable places,
giving people better, more
sustainable choices.”**





Transport2030

What does the model do?

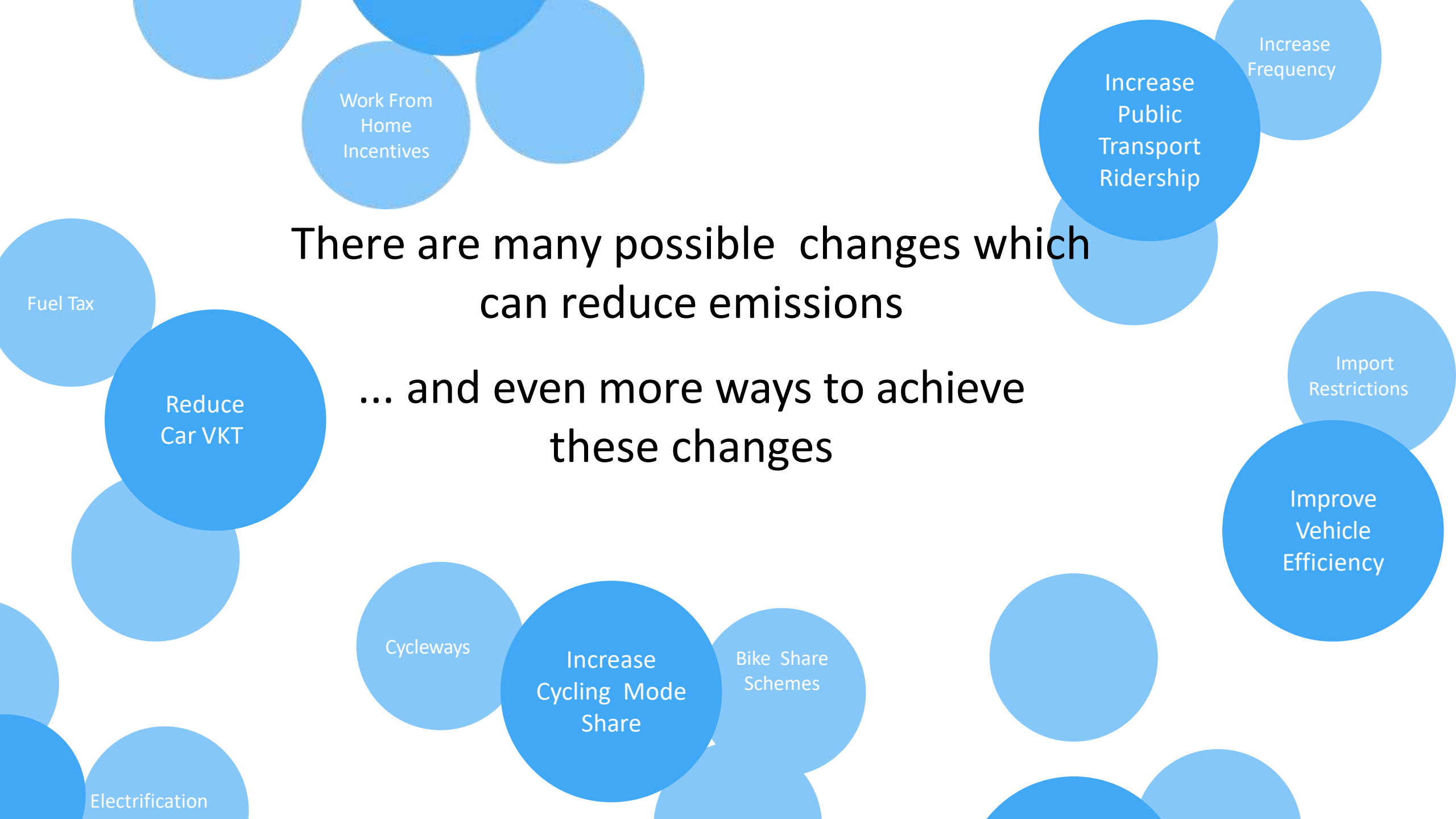
There are many possible changes which
can reduce emissions

Reduce
Car VKT

Increase
Public
Transport
Ridership

Improve
Vehicle
Efficiency

Increase
Cycling Mode
Share



There are many possible changes which
can reduce emissions

... and even more ways to achieve
these changes

Fuel Tax

Reduce
Car VKT

Work From
Home
Incentives

Increase
Public
Transport
Ridership

Increase
Frequency

Import
Restrictions

Improve
Vehicle
Efficiency

Cycleways

Increase
Cycling Mode
Share

Bike Share
Schemes

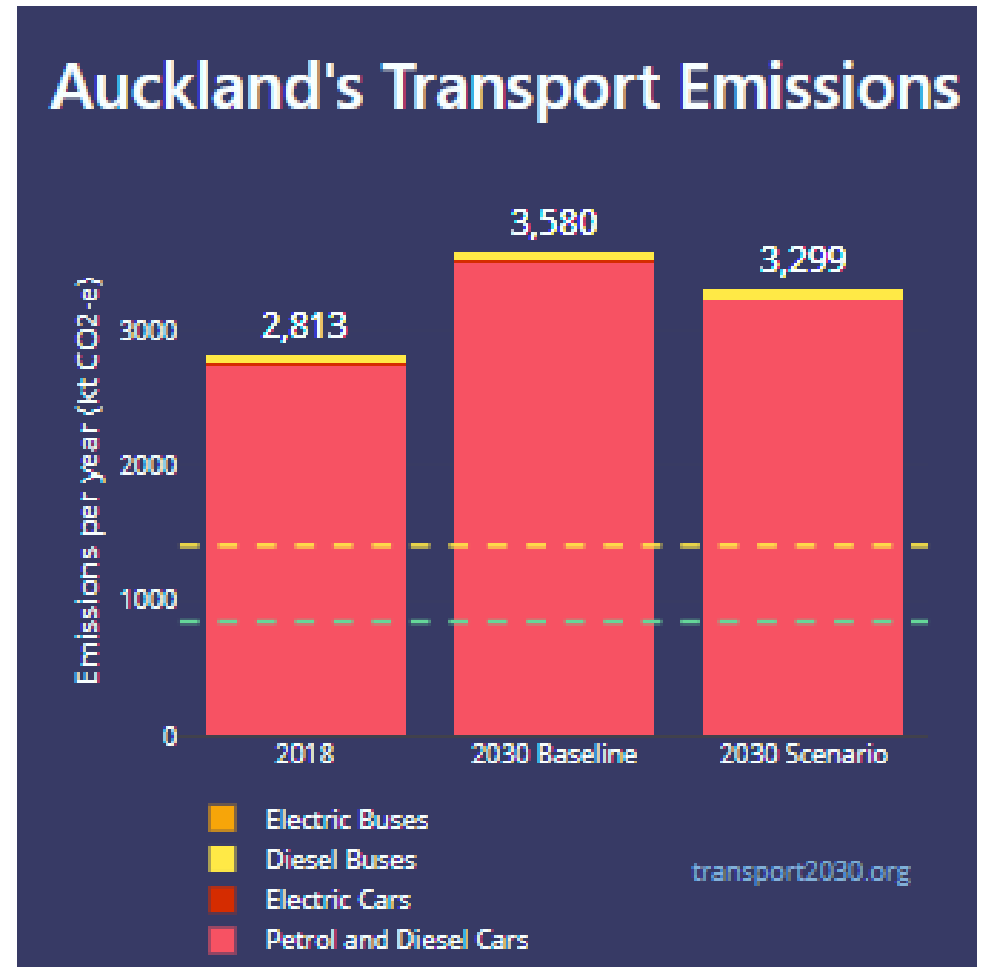
Electrification

Outputs – What do we want to know?

- GHG emission changes
- Passenger-kilometers travelled (PKT)
- Cars on the road

Emissions

- CO2-e per year
- Baseline emissions, and projected emissions
- Tracking with our goals



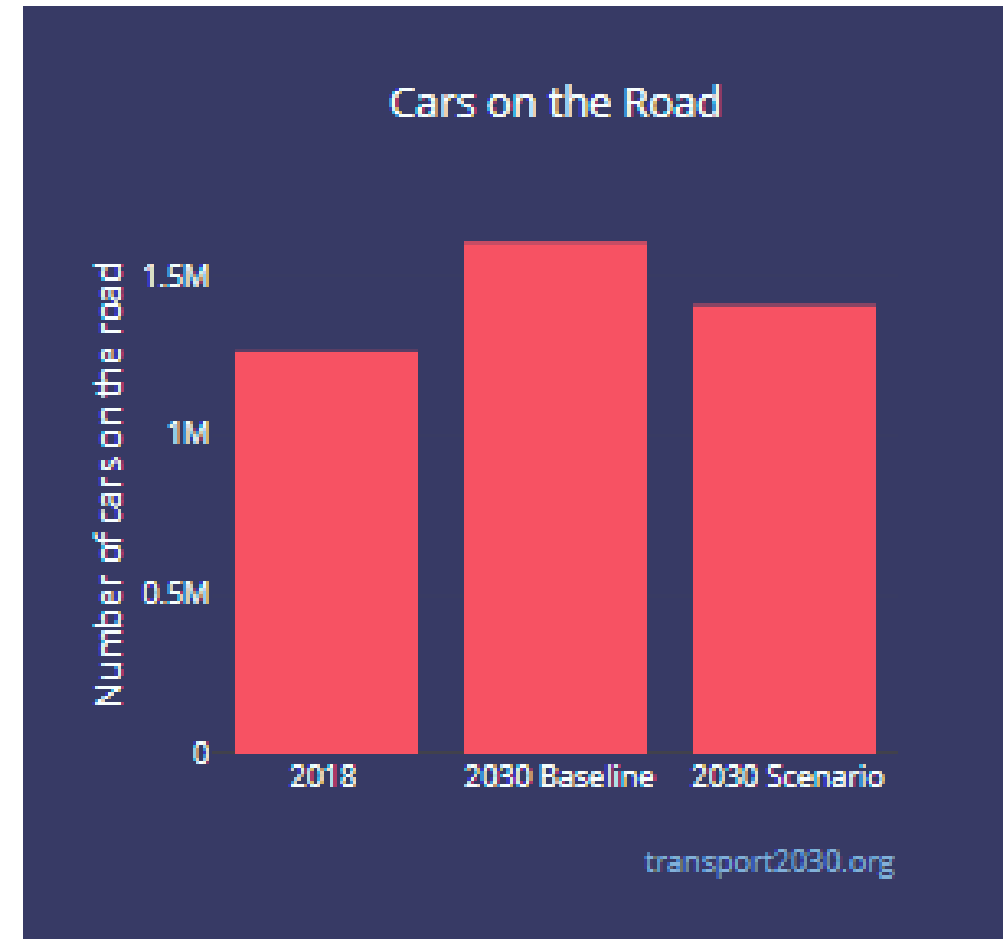
PKT

- Proportion of PKT travelled by mode
- Shows diversity of transport choices



Cars on the Road

- Approximate measure for the number of cars on Auckland roads
- Based on VKT from cars



Results and Insights

- We have a range of options
- We need to do some of everything

Insights

Topical commentary on the Auckland economy



April
2020

**Fare deal or essential service:
What cuts congestion and
emissions most?**

**Chief
Economist
Unit**

**Auckland
Council**
Te Kaunihera o Tāmaki Makaurau



Auckland's Transport Emissions

More than 35% of Auckland Region's emissions come from road and rail transport. This website illustrates how changing Auckland's transport network can reduce its future carbon emissions.

Make a Change

Select from the specific transport projects below to see how they affect emissions. Details of each change are listed at the bottom of the page.

Reduction in Trips Taken



Reduction in Average Trip Length

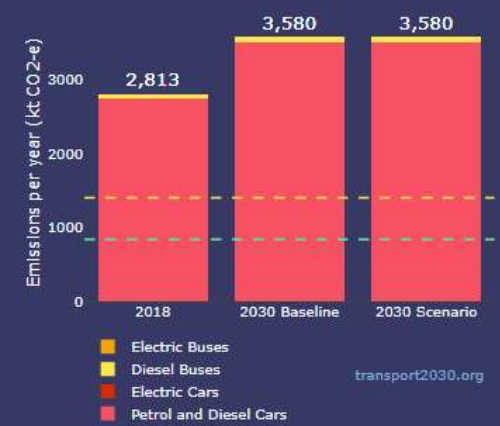


Public Transport Projects

- City Rail Link
- Airport to Botany
- Isthmus Crosstown
- Northwestern Light Rail
- City to Airport Light Rail
- Eastern Busway (AMETI)

Public Transport Ridership Changes

Auckland's Transport Emissions by Mode



What's your target?

Target One: Reduce to 1,400 kt CO2-e

Target Two: Reduce to 840 kt CO2-e

[Target One Details](#)

[Target Two Details](#)

kt CO2-e = Thousands of tonnes of carbon dioxide equivalent

Proportion of Passenger Distance by Mode



Summary

- Important to look at a regional or nationwide level
- Sustainable transport is important to minimise increases but current planned projects aren't enough
- To meet our goals, we have to fundamentally change BAU (SOVs, number of trips and trip length)

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