Car Sharing using electric vehicles

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Car sharing using electric vehicles

Some Auckland context
- Auckland Transport
- Growth
- Strategic Priorities - PT

Why is AT interested in car sharing?

Process
- Why a Request for Proposal?
- What outcomes was it seeking?
- What were the ‘dimensions’ of responses?

What are the risks for public transport authority and how have those risks been mitigated?
Nov 2010 Auckland Region became a unitary authority controlled by the Auckland Council
  • Replaced previous regional council and seven local councils
  • 1.5m population / 1890 sq mi

AT is a Council Controlled Organisation with its own Board
  • Jointly funded by Auckland Council and NZ Transport Agency
  • All public transport, active transport (walking and cycling), road operations and maintenance, all on-street parking, and a number of off-street parking facilities
Growth - regional

Source: Statistics New Zealand, May 2015
Growth - Household and Employment
# Growth – City Centre

<table>
<thead>
<tr>
<th>Year</th>
<th>Employees</th>
<th>Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>76,520</td>
<td>9,260</td>
</tr>
<tr>
<td>2006</td>
<td>83,330</td>
<td>19,670</td>
</tr>
<tr>
<td>2013</td>
<td>94,550</td>
<td>29,300</td>
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Growth - Cruise Ships

Ships are getting larger so passenger growth even more significant
Growth - Air Passenger Arrivals

Rolling 12 Month Total (millions)

International
Domestic

AT Strategic Themes

- Prioritise rapid, high frequency public transport
- Transform and elevate customer focus and experience
- Build network optimisation and resilience
- Ensure a sustainable funding model
- Develop creative, adaptive, innovative implementation
Public Transport Key Priorities

1. INTEGRATED TICKETING & FARES
2. PROCUREMENT & CONTRACT REFORM (PTOM)
3. RESOURCE EFFICIENCY & EFFECTIVENESS
4. INFRASTRUCTURE DEVELOPMENT
5. NEW NETWORK incl. FREQUENT SERVICES NETWORK
6. ON-TIME
7. FIRST & FINAL LEG
8. CUSTOMER EXPERIENCE
9. PROMOTION & CAMPAIGNS
10. METRO SAFETY & SECURITY
Investing in Public Transport

AT Capital Programme

$ Millions

Year

2013 2014 2015 2016 2017 2018

New Capex Renewals CRL Total
Public Transport déjà vu…?
PT Investment Results

Morning commute:
more now use public transport than drive

<table>
<thead>
<tr>
<th>Public transport</th>
<th>34,700 (45%)</th>
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<tbody>
<tr>
<td>Bus</td>
<td>24,698 (32%)</td>
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<tr>
<td>Train</td>
<td>6,570 (8%)</td>
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<tr>
<td>Ferry</td>
<td>3,429 (4%)</td>
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<tr>
<td>Drivers</td>
<td>31,704 (41%)</td>
</tr>
<tr>
<td>Car passengers</td>
<td>4,551 (6%)</td>
</tr>
<tr>
<td>Walking</td>
<td>5,330 (7%)</td>
</tr>
<tr>
<td>Cycling</td>
<td>1,015 (1%)</td>
</tr>
</tbody>
</table>

Buses make up 2.5% of vehicles but carry 30% of people
PT Investment Rapid Transit Network

Albany to CBD - Travel Time by Mode

Weekdays March 2015

In-vehicle Travel Time (minutes)

Hour Starting

Panmure to CBD - Travel Time by Mode

Weekdays March 2015

In-vehicle Travel Time (minutes)

Hour Starting
Why is AT Interested in Car Sharing?

- Supports first and final leg - some vehicles at PT hubs
- Car share members are more likely to use PT

- Provides viable alternative to car ownership for some
- Compliments PT and active modes, reducing air pollution and fuel use per capita

- Supports higher density development and more efficient land use by reducing parking requirements

- Commercial scheme - no net cost to AT
- Potential for AT fleet efficiencies

- Uses mobile technology to support a highly flexible booking, billing, and returns process
- Potential to integrated with PT journey planning and real time traffic data to provide adaptive end-to-end journey planning
- Potential to use AT HOP card in vehicle opening/locking process.
Why a RFP and What Outcomes?

RFP approach
- Front-foot
- Fairness
- Attract broad range of bidders

Open RFP issued 9\textsuperscript{th} March 2015 inviting operators to submit proposals to establish an electric vehicle based car sharing scheme in Auckland

Non-prescriptive; it stated:
- A strong preference for an A to B or zonal model based on greater utility for the customer;
- An estimated number of 250-300 vehicles for start-up based on comparison with other cities, but this level was not made a requirement;
- AT believed that such a scheme can be operated using Plug-in Electric Vehicles (PEVs), but again this was not made a requirement;
- Proposals to be based upon the scheme being established and operated on a commercial basis, with no net cost to Auckland Transport.

RFP closed 19\textsuperscript{th} June 2015 with nine responses; short-list of 3 responses; recommendation to Board
RFP Response ‘Dimensions’

Diverse response to RFP:

The approach to the size of initial fleet

- Some respondents argued for small scale CBD-centric deployment which grows in response to demand;
- Others that only a larger and broader scale deployment creates a level of utility (the ‘network effect’) that will attract customers

The approach to charging infrastructure

- Some proposals leveraged commitments made by third parties for publically available chargers;
- Others brought a turn-key solution which included chargers

The use of Plug-in Electric Vehicles

- Some respondents mitigated the start-up costs and operational risks by commencing service with a small proportion of PEVs in their fleet, growing the mix over time;
- Others deployed a full PEV fleet from day one

Exclusivity

- Some proposals required exclusivity;
- Others saw at this stage of market development there is benefit in having a number of operators to grow the market – the more service provision there is, the more attractive car sharing is as a proposition
Risks and Mitigations

Organisational support
• Cross functional team – Strategy & Planning; Parking Services; Road Corridor Access/Ops; Metro (PT); Finance/Investments; Procurement; Auckland Council Sustainability
• Executive Steering Group and Board

Attracting proposals
• Mayor and Chair fronted a very public launch event with press invited
• Invitation letter from CEO outlining why Auckland is attractive
• Balanced ‘no net cost’ requirement with offer for in-kind support
• Non-prescriptive RFP with interactive process
• Extension requests viewed favourably

Public sector procurement process
• Real-time probity assurance

Policy and public law
• Review
Thank you.