Green Your Bus Ride!
Decarbonizing Transport for a Sustainable Future

Iguaçu Call For Action - August 2018

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NDC Partnership

• NDC financed work
• Technical, institutional and financial roadmap to speed up the uptake of cleaner bus technologies in 5 Latin American cities
• Technical work mainly conducted by consulting firm steer for the World Bank
Main technologies

Electric focused on Slow Charge BEB
Methodology

• Literature review
• Focus groups in each city & interviews
• Local workshops (+20 people/city)
• Energy – Transport – Environmental integrated approach
• Defined 5 enabling factors
Enabling Factors

- These factors define barriers and opportunities for clean bus uptake
Environmental Aspects

Most cities above WHO recommendations for \( PM_{10} \) and \( PM_{2.5} \).
Energy Matrix Aspects

Different realities, but all countries growing in renewables and cleaner fuels
Public Transport Aspects

<table>
<thead>
<tr>
<th>City</th>
<th>Fleet</th>
<th>Average Age</th>
<th>Trips/Year</th>
<th>Operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buenos Aires</td>
<td>18,412</td>
<td>5 years</td>
<td>3,146 million</td>
<td>~193 private</td>
</tr>
<tr>
<td>Mexico City</td>
<td>30,641</td>
<td>20 years***</td>
<td>~3,200 million</td>
<td>2 public, 16 corridor concessions***</td>
</tr>
<tr>
<td>Montevideo</td>
<td>1,528</td>
<td>13 years</td>
<td>~300 million</td>
<td>4 private</td>
</tr>
<tr>
<td>Santiago</td>
<td>6,681</td>
<td>8.4 years</td>
<td>868 million</td>
<td>7 private</td>
</tr>
<tr>
<td>São Paulo</td>
<td>14,957</td>
<td>5 years</td>
<td>~5,840 million</td>
<td>15 private, 12 concessions</td>
</tr>
</tbody>
</table>

* 50% of bus fleet is 20+ years old
** Registered as transactions
*** Plus an unknown number (~200) of individual concessions only for CDMX

PT systems are specific in size, level of formality, with specific local operational conditions.
Governance and Markets

Heterogeneous levels of administrative and public transport organization. Operators with a strong position in most markets.

Argentina
Nation + Greater Buenos Aires + CABA + Localities

Chile
Nation + Regions + Municipalities

Brazil
Nation + State of SP + Metropolitan SP + Municipalities

México
Nation + States + “Mexico City” + Alcaldías

Uruguay
Central + Departments + Metropolitan MV + Municipalities
System Funding and Financing

- User Tariffs
- Subsidies
- System & Buses
- Manufacturers + Dev. Banks
- Manufacturers
- Government mechanisms

Systems depend highly on government funding, and subsidies are provided in very different ways. Financing has come from governments, development banks & manufacturers.
Opportunities

• Cleaner agenda
• Environmental and energy efficiency commitments
• Lithium production in some countries within the region
• Cleaner fuels (natural gas) + renewables (eolic + solar) are growing in the region
• More clean bus pilots and performance information
• Existing “green” & “clean” funding
Challenges

- Still inadequate data or lack of information on costs and performance of CB
- Nascent environmental policies and normative for alternative technologies
- Energy networks readiness to adapt to escalation
- Managing new institutional frameworks for interdependent policies
- Lifting financing constraints
- Not working at scale
Recommendations

- Market competition is an OPPORTUNITY ... allow it to bring prices down faster
- Reorganize subsidies to IMPROVE QUALITY & ENVIRONMENTAL PERFORMANCE instead of supply-based subsidies
- EXTEND pilots ... test! ... with MORE pilot monitoring... share and assess
- MORE transparency ... more monitoring and sharing the data
- IDENTIFY the appropriate candidates... study which technology works where
- Assess energy INFRASTRUCTURE ... find the low hanging fruits
- INNOVATE in instruments for funding and financing ... other players might be willing to take risks
Green Your Bus Ride!

DECARBONIZING TRANSPORT FOR A SUSTAINABLE FUTURE
27–30 AUGUST 2018
BILBAO, SPAIN, ON BEHALF OF
PARQUE NACIONAL, RIOCHI – FZD 2018 – BRAZIL
Workshop Program

Day 1: Share global knowledge and learn from the state-of-the-art
- Presentations from WB, WRI and GIZ
- Contrasting global experiences: Spain, China, India and US
- Bus concessions models around the world
- Elements of costs, technology requirements and environmental standards
- Implications of electromobility for energy sector

Day 2: Exchange local experience in Latin America and Caribbean
- Environmental standards and climate ambitions
- Governance and policies for sustainable transport
- Financing and procurement strategies
- Concessions, contracts and fleet renewal
- Energy matrix, charging infrastructure and energy subsidies
- Self-evaluation for cities readiness

Day 3: Meet the financiers and neighbor cities, and pitch your projects
- Financiers presentations: BNDES, CAIXA, BANOBRAZ
- Instruments and tips to mitigate financing risks
- Shark Tank: each city pitch their project to the “sharks”

Day 4: Visit Itaipu Hydroelectric Plant or Macuco Safari
Some takeaways for organizing the event…

- Find good partners (like WRI and GIZ), increase transparency, and build synergies
- Involve Environment, Energy, Transport, Finance and Municipality early on so they can take ownership
- Identify potential champions in each sector (mix of political, technical and operational) with the help of local staff
- Invite highly-qualified international speakers and provide space for counterparts to exchange local experience
- Put ministries from the same country into a team, and let them work together and apply what they learned to their proposal
- Cities are missing: frameworks and databases for monitoring the new pilots
- Cities are missing: the big elephant in the room, captured markets, very difficult to change, feel disempowered, what is the pathway?
World Bank and Steer Teams

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IGUAÇU CALLS you FOR ACTION
Thank you!

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