SCAG Model Status Update

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1. SCAG Model Peer Review

2. Connect SoCal – SCAG 2020 RTP/SCS
SCAG Model Peer Review
Objectives:

1. Assess Adequacy of SCAG Model
2. Recommend Future Enhancement
3. Comment on Technical Reports
The 6th SCAG Model Peer Review Meeting

- May 31st, 2019 at SCAG
- Peer Review Panel Members & Advisors
  - Federal, MPOs, Metro, Academic, and Professionals
  - Other participants: ARB, Caltrans, OCTA
- All Day Meeting
  1. Presentation
  2. Open Discussion
  3. Panel Discussion
  4. Panel Recommendation
Panel Recommendation

- SCAG Model meets current state of the practice
  - Some special features go beyond standard practice

- Model structure is well designed, and reflects travel behavior well

- Clever use of Amazon Cloud Services for ABM runs

- Also received many recommendations for future enhancement
Prepared for RTP Model Operation

- **Continued model enhancement**
  - Peer review comments and SCAG internal review

- **Short-term enhancement:**
  - Work location model / Intra-county commuting
  - Mode choice model / Transit boarding

- **Prepared ABM operation for SCAG Plan**
  - Network development
  - Model input data
  - Model output process
Prepared for RTP Model Operation

• Continued model enhancement
  • Peer review comments and SCAG internal review

• Short-term enhancement:
  • Work location model / Intra-county commuting
  • Mode choice model / Transit boarding

• Prepared ABM operation for SCAG Plan
  • Network development
  • Model input data
  • Model output process
Connect SoCal – 2020 RTP/SCS
Connect SoCal
SCAG Regional Plan for 2020 RTP/SCS

- Connect SoCal
  - SCAG 2020-2045 RTP/SCS (Regional Transportation Plan/Sustainable Communities Strategy)

- Nearly 3,000 transportation projects
  - Provided by CTCs (County Transportation Commissions)

- Integrated transportation and land use strategies
Model Operation & Results for Draft RTP

- Nearly 60 model runs
- Met Conformity
- Met Greenhouse Gas Emission Targets
  - 2020: 8%
  - 2035: 19%
Recent VMT Growth from HPMS

- VMT has shown significant drop in SCAG region in 2016
Compared to 2016 RTP Data

- Total VMT for year 2016 is 3% (or 14 M) lower than 16 RTP, according to HPMS
- 6%-7% lower for Inland and Ventura
2020 Draft RTP Model Output: 2045 Baseline

Compared to 2016 RTP Data

• 2045 Baseline of 2020 RTP is about 2% lower

• VMT growth 2016-2045 Baseline is about the same

2045 baseline VMT for 2016 RTP is estimated based on 2040-2045 household growth
• Plan VMT/Emission is lower than Baseline

• Main Plan Input/Assumptions
  1. Land Use Strategies
  2. Highway Projects
  3. Transit Projects
  4. TDM / Work from home/ Telecommuting
  5. VMT Fee (Auto Operating Cost)
Compared to 2016 RTP

- VMT reduction from baseline to plan is about 4%; 6.5% for 16RTP

- Main difference is attributed to:
  - TDM Plan
  - Auto Operating Cost / VMT Fee
  - Model Sensitivity
  - Model Enhancement
### 2020 Draft RTP Model Output: Plan Input

#### Change between Baseline and Plan

<table>
<thead>
<tr>
<th>Project</th>
<th>2016 RTP</th>
<th>2020 RTP</th>
<th>Note for 2020 RTP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Projects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Highway Lane Miles</td>
<td>+6,850</td>
<td>+5,200</td>
<td>Less highway investment</td>
</tr>
<tr>
<td>% Rail&amp;BRT / Total Rev Miles</td>
<td>28%</td>
<td>47%</td>
<td>More rail enhancement</td>
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<tr>
<td>% AOC Change</td>
<td>+9%</td>
<td>+7%</td>
<td>ARB methodology</td>
</tr>
<tr>
<td>% TDM Workers (delta)</td>
<td>+10%</td>
<td>+3%</td>
<td>SCAG</td>
</tr>
<tr>
<td><strong>Model</strong></td>
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</tr>
<tr>
<td>AOC Elasticity to VMT</td>
<td>−0.25</td>
<td>−0.15</td>
<td>ARB short-term elasticity</td>
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<tr>
<td>Work from Home Rebound</td>
<td>0</td>
<td>25%</td>
<td>Model enhancement</td>
</tr>
</tbody>
</table>

*2016 RTP: 2040; 2020 RTP: 2045*
Share of VMT Growth by County

• Share of VMT growth between 2016 and Baseline is consistent between 2 RTPs

• Share of VMT growth between Baseline and Plan is consistent between 2 RTPs
Thank you