Revised Structure/Approach for Capital Program Prioritization

TSDAC
February 14, 2017
Items for discussion

- Revised Structure/Approach to Capital Program
- Categorization of Projects
- Illustrative Funding Methodology
- Application of prioritization and measures
- Illustrative Allocation Process
- Scenarios for evaluation
Revised Structure for Capital Program Prioritization

- Project Submittal
  - Project Type
    - SGR
      - SGR Needs Screening
        - Technical Score: Asset Condition + Service Impact
          - SGR Ranking
            - State Match / Funding Tiers
              - Funding Allocation
    - Minor Enhanc.
      - Technical Score: Service Impact
        - Minor Enhanc. Ranking
          - Expansion Ranking
            - 6 Criteria
              - Weighting
                - Technical Score
                  - Cost Effectiveness Score
                    - State Share of Cost
                      - State Match / Funding Tiers
                        - Funding Allocation
<table>
<thead>
<tr>
<th>Illustrative Funding Methodology</th>
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</thead>
</table>

**State of Good Repair and Minor Enhancement**  
(70% - illustrative)  

| SGR  
(70% - illustrative) | Minor Enhancement  
(30% illustrative) | Expansion  
(30% - illustrative) |
|-----------------------|-------------------|------------------|
| Minimum funding level (floor) for SGR  
Funding can be moved from expansion to SGR based on need | | Funding level to be determined based on review of needs, funding can be moved to SGR but not from SGR to expansion |

**Prioritization Criteria**

<table>
<thead>
<tr>
<th>Asset Condition and Service Quality</th>
<th>Service Quality</th>
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<tbody>
<tr>
<td>6 Factor Areas (similar to Smart Scale)</td>
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</tbody>
</table>

**Eligibility**

| Asset Replacement  
Vehicles  
Facilities/Equipment  
Technology | Fleet Increase < x%  
Facility expansion < x%  
Technology < x% |
|-----------------|-------------------|
| Capacity Expansion  
Capital for major service expansion  
> x%  
Major fleet expansion > x%  
Major facility expansion > x% |

**Sample Project Types**

| Replacement vehicles | Increasing spare vehicle ratio  
Technology to improve efficiency/operation |
|----------------------|----------------------------------------|
| Capital for new routes  
New facilities w/increased capacity  
New fixed guideway |

**Illustrative State Match Rates**

| up to 80% | up to 80% | up to 50% |
Project Types

- **State-of-Good Repair (SGR):** Projects/programs to replace or rehabilitate an existing asset

- **Minor Enhancement (ME):** Projects/programs to add capacity, new technology, or a customer enhancement meeting the following:
  - Project costs less than $2 million, **OR**
  - Expansion vehicles: less than 5 vehicles or less than 5% of fleet

- **Major Expansion:** New projects/programs that add, expand, or improve service (greater than $2M)
State-of-Good Repair Projects

- Vehicle Replacement
  - Replacement buses (<30-ft, 35-ft, 40-ft)
  - Replacement vans
- Admin/Maintenance Facilities
  - Rehab/renovation of bus maintenance facility
- Customer Facilities
  - Bus shelters
  - Bus stop accessibility (ADA)
  - Bus route signage
- Other
  - Capital Cost of Contracting
  - Debt service

- Maintenance equipment & parts
  - Focus on extending the life of assets
  - Spare Parts, Hybrid Bus Batteries
  - Shop Equipment
- Technology/Systems/Communications
  - Fare payments systems and hardware
  - Safety/surveillance/security equipment and systems
  - Software and hardware to support AVL, payroll and administration, planning and scheduling, real-time passenger information and reporting
Minor Enhancement Projects

- Vehicles - minor fleet expansion
- New bus shelters
- Route Signage (Bus Stop Signs)
- Purchase digital bus stop signage
- New fare Collection Equipment (fareboxes)
- New software, hardware, systems
- Minor real estate acquisition
Major Expansion Projects

- Admin/Maint Facility
- Transit/Transfer Center
- Vehicles – major fleet expansion
- New station entrance
- BRT/LRT Corridor
Process assumes a split of funding between State of Good Repair and Expansion

Minimum funding level would be established for SGR
  - Would need additional trend analysis to establish for implementation

Minor enhancements would be prioritized separately, but included within the funding for SGR

Funds could be diverted from expansion to SGR to address peaks in SGR demand (not for ME)

SGR funds would not move to increase funding for expansion
State-of-Good Repair - Criteria

- Asset Condition: 60 points
  - Asset age and/or mileage
  - Asset condition rating
  - Local priority

- Service Quality Impact: 40 points
  - Service frequency & reliability
  - Operating efficiency
  - Customer experience
  - Safety and security

- For SGR replacement-type projects, potential benefit score of up to 100 points
Service Quality Impact
40 points

- Service frequency & reliability
- Operating efficiency
- Customer experience
- Safety and security

- For Minor Enhancement projects, potential benefit score of up to 40 points
## Service Quality Ratings (40 pts)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>High (10)</th>
<th>Medium (5)</th>
<th>Low (1)</th>
<th>No Impact (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Frequency, Travel Time and/or Reliability (10 pts)</td>
<td>Speeds up transit routes or allows for increased frequency. Significant impact on reliability either through preventing breakdowns or removing vehicles from mixed traffic</td>
<td>Moderate positive improvement</td>
<td>Marginal or low improvement</td>
<td>No (or negative) impact</td>
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<tr>
<td>Service Operating Efficiency (10 pts)</td>
<td>Provides for significantly more cost-effective provision of service</td>
<td>Moderate positive improvement</td>
<td>Marginal or low improvement</td>
<td>No (or negative) impact</td>
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<tr>
<td>Service Accessibility and/or Customer Experience (10 pts)</td>
<td>Significant improvement in a customer's ability to access the system or a significant improvement in the ease of use of the system.</td>
<td>Moderate positive improvement</td>
<td>Marginal or low improvement</td>
<td>No (or negative) impact</td>
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<tr>
<td>Safety and Security (10 pts)</td>
<td>Provides a significant improvement in safety or security</td>
<td>Moderate positive improvement</td>
<td>Marginal or low improvement</td>
<td>No (or negative) impact</td>
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<tr>
<td>Criteria</td>
<td>High</td>
<td>Medium</td>
<td>Low/No Impact</td>
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<tr>
<td><strong>Service Frequency, Travel Time and/or Reliability</strong></td>
<td>Replacement buses, Minor Expansion - Buses</td>
<td>Bus Garage Facility Repairs, Purchase shop equipment</td>
<td>Capital cost of contracting, Bike racks</td>
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<tr>
<td><strong>Service Operating Efficiency</strong></td>
<td>Maintenance Facilities, fare collection equipment</td>
<td>Fuel-efficient vehicles, Transfer center</td>
<td>Bus shelters, bus cameras</td>
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<tr>
<td><strong>Service Accessibility and/or Customer Experience</strong></td>
<td>Bus stop accessibility improvements, bike racks, parking garage, transfer center, elevator/escalator rehab</td>
<td>Bus stop amenities, parking garage rehab</td>
<td>Purchase shop equipment, admin building construction</td>
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<tr>
<td><strong>Safety and Security</strong></td>
<td>Surveillance/Security Equipment, Police Emergency Management Equipment, Bus Camera Installation, Bus stop lighting</td>
<td>Elevator/escalator replacement</td>
<td>New fare payment system, digital bus stop signage</td>
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<tr>
<td>Criteria</td>
<td>Measures</td>
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<tr>
<td>Congestion Mitigation</td>
<td>Total Ridership</td>
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<td>Economic Development</td>
<td>Project Support for Economic Development</td>
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<tr>
<td>Accessibility</td>
<td>Access to Jobs</td>
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<td>Access to Jobs by Disadvantaged Persons</td>
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<td>Access to Multimodal Choices</td>
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<tr>
<td>Safety</td>
<td>Direct Safety Benefit (presence of safety features)</td>
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<tr>
<td>Environmental Quality</td>
<td>Air Quality and Environmental Effect (based on new ridership)</td>
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<tr>
<td>Land Use</td>
<td>Transportation-Efficient Land Use</td>
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State of Good Repair

- Establish a set state match rate for SGR projects (illustrative – 80%)
- Intended to provide predictability for funding of SGR projects
- Combination of state/local prioritization
- Role of multi-year asset management planning (TAM/TransAM)
Minor Enhancement

- Prioritized separately from SGR, but funded from the same bucket
- Establish a set state match rate for SGR projects (illustrative – 80%)
- Funding need of SGR priorities would inform funding set-aside for minor enhancements (state of good repair first)
Expansion

- Funded separate from SGR, with no guaranteed minimum funding level
- Establish a state match rate for expansion projects (illustrative – 50%), but also need to look at potential for leveraging with other sources (i.e. federal and/or Smart Scale)
State Match Rate – Discussion Points

- Ability to fully fund projects with higher match rate (such as 80%)
- Ability to fund more projects at lower match rates (tiers)
- Impact on local funding subsidy levels
- Predictability of program funding
Propose evaluation of six scenarios

- Three variables for state match rate:
  - 80% illustrative state match rate
  - Application of current tiers as state match rates
  - State match rate needed to fund all SGR projects

- Two variables for funding level:
  - “Base Case”
  - Additional funding – assuming additional funds are provided to fill funding gap, with no program growth
Scenarios for Evaluation

- Prioritization scoring will be tested using example projects
- Ranking of example projects will be used to indicate types of projects likely to be funded under different funding scenarios

SGR – Example projects ranked:
1. Vehicle replacement
2. Facility replacement
   .
   .
   .

Minor Enhancement – Example projects ranked:
1. Minor vehicle expansion
2. New scheduling software
   .
   .
   .

Major Expansion
Minor Enhancement
SGR

What types of projects are funded under Scenario #1?

Six-Year Improvement Program
Next Steps

- Trend analysis – program distribution between SGR and Expansion
- Confirmation of project categorization – SGR, minor enhancement, expansion
- Evaluation of scenarios
Next Steps

- Revenue Advisory Board will meet in March 8
  - Focus on revenue sources
  - Update from TSDAC on prioritization

- TSDAC will meet on March 31
  - Scenarios
  - Economic Analysis
  - Brief on revenue sources