



Metro

Metro

Board Report

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2023-0189, **File Type:** Oral Report / Presentation

Agenda Number: 3.

**ADVANCED TRANSIT VEHICLE CONSORTIUM
MARCH 22, 2023**

SUBJECT: ZEB ALTERNATIVE DELIVERY PROJECT SCOPE DEFINITION

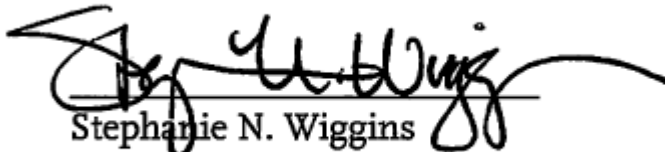
ACTION: ORAL REPORT

RECOMMENDATION

RECEIVE oral report on ZEB Alternative Delivery Project Scope Definition.

Prepared by: Shaun Miller, Senior Manager, Transportation Planning (Interim), (213) 922-4952

Reviewed by: Seleta Reynolds, Chief Innovation Officer, (213) 922-4098



Stephanie N. Wiggins
Chief Executive Officer



ZEB Program Alternative Delivery

Pre-Procurement Work Plan Project Scope Definition

March 2023



Today's Agenda

1. ZEB Ecosystem & Service Delivery Models
2. Pre-Procurement Work Plan Status
3. Project Scope Definition Workshop Objectives & Takeaways
4. Opportunities and Risks of Including Vehicles in the Bundle
5. Project Scope Recommendation
6. Proposed Next Steps

Appendix: Alternative Delivery Project Division Bundle Selection Criteria

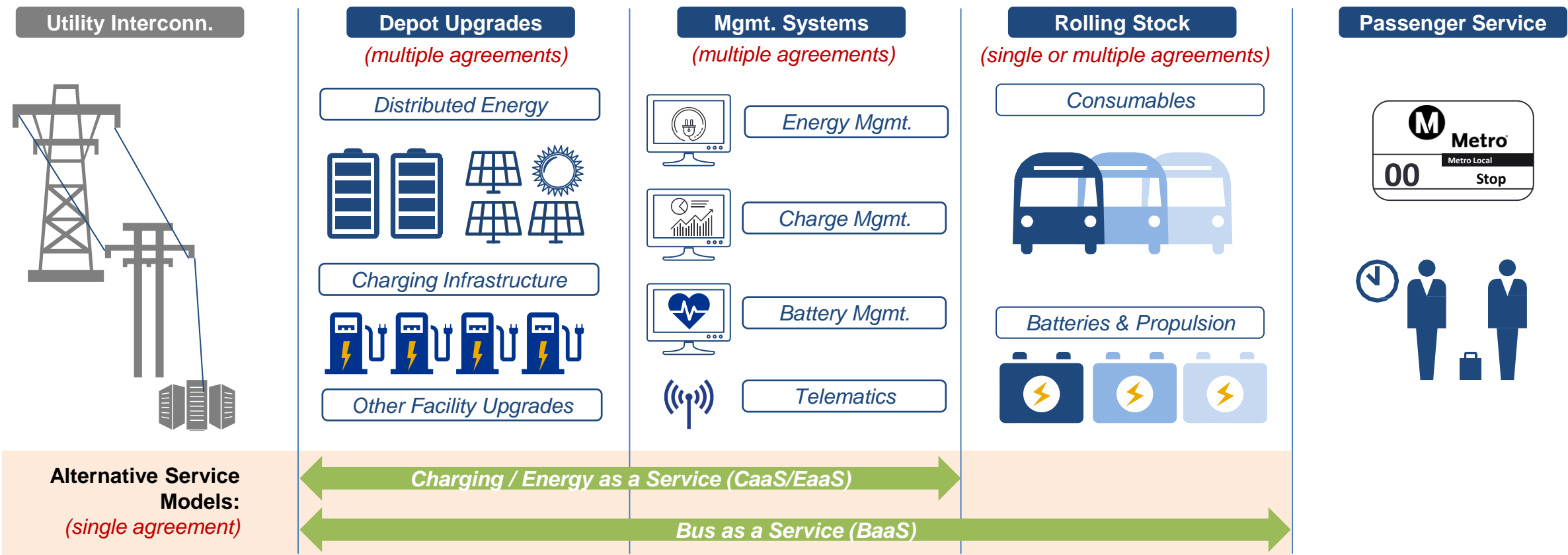


01

ZEB Ecosystem & Service Delivery Models

An Examination of the ZEB Ecosystem & Alternative Service Models

The Alternative Delivery Working Group (ADWG) examined the current ZEB ecosystem to develop a holistic view of the program’s development and identify opportunities for alternative delivery to mitigate risks through service-based models, performance-based contracting, or collaborative delivery:



Legend:

Utility Responsibility

Metro Responsibility

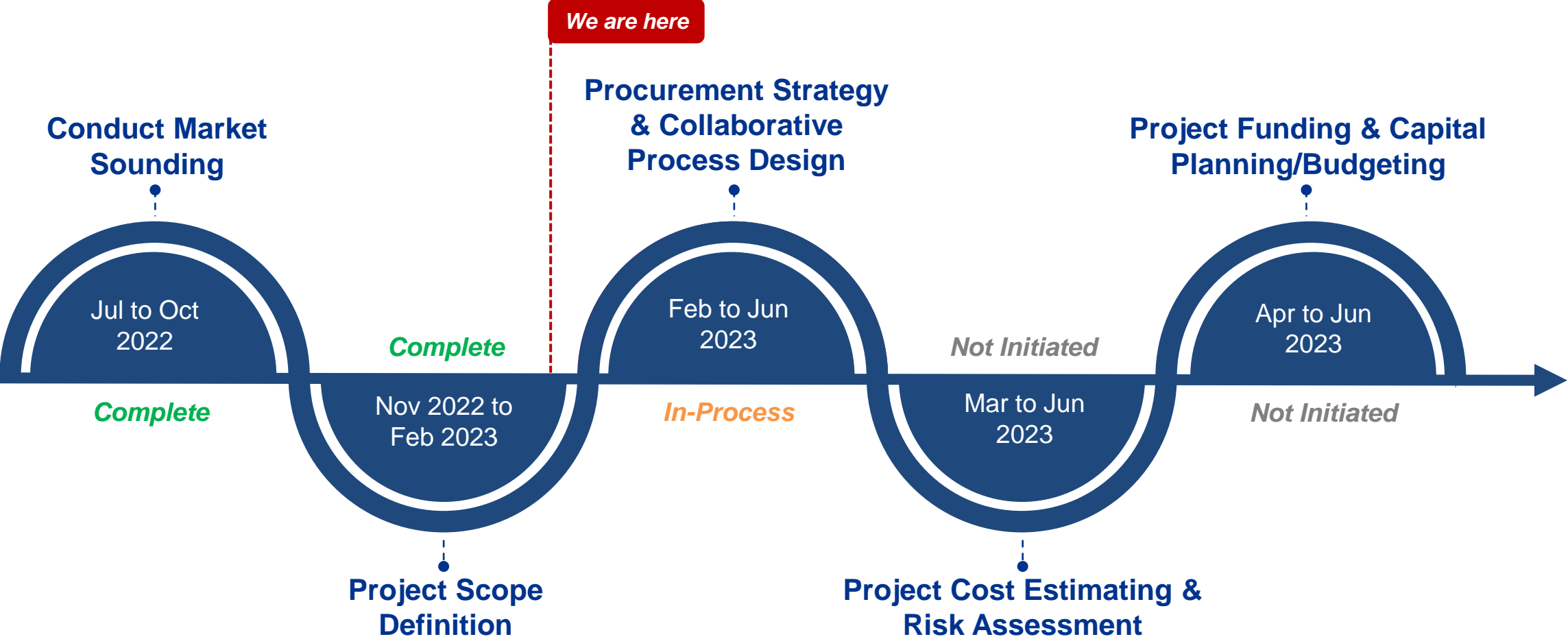
Shared Developer-Metro Responsibility



02

Pre-Procurement Work Plan Status

Pre-Procurement Work Plan Timeline





03

Project Scope Definition Workshop Objectives & Takeaways

Project Scope Definition Workshop Objectives & Takeaways

The project scope definition phase of the Work Plan began in November and OSI, Operations, and relevant subject matter experts within the ADWG completed a series of workshops across five project areas:

- 1. Division Bundle**
- 2. Facilities Assets & Management Systems**
- 3. Vehicle & Fleet Assets**
- 4. Utility Coordination**
- 5. Service Planning & Continuity of Service**

04

Opportunities and Risks of Including Vehicles



Opportunities & Risks by Including the Buses in the Bundle

- **Align vendor incentives (mitigate schedule delivery mismatch)**
 - Mitigates schedule delivery mismatch between vehicles and chargers
 - ***Risk: Creates single critical path for ZEB transition (and aggregates delay risk)***
 - Pays for vehicles only when ready to receive them
 - Mitigates bus/charger/systems integration risk and upgrades throughout period of performance
- **Single vehicle contract (instead of three contracts of ~250 vehicles each)**
 - Potential economy of scale at acquisition
 - ***Risk: Limited and challenged U.S. bus market due to Buy America & manufacturing capacity***
 - Size of the purchase could incentivize participation from non-U.S. based OEMs
 - Vehicle uniformity across the fleet and potential improved O&M performance
 - ***Risk: Bet on future performance of a single OEM (requires extensive qualifications-based selection)***
 - Reduced agency administrative burden
- **Turnkey solution and single point of contact for full ZEB ecosystem**
 - Expands options for vehicle procurement
 - ***Risk: Similar projects in implementation are international (though strong U.S. market interest)***



05

Project Scope Recommendation

Alternative Delivery Project Scope Recommendation

- **Division Bundles:** Proceed with Divisions 15, 13, 3 and 5 in the alternative delivery bundle as they best fit the selection criteria and minimize third-party challenges (e.g. SHPO, SCE, City of LA, etc.)
 - **Division 3** 630 W Ave 28, Los Angeles
 - **Division 5** 5425 S Van Ness Ave Los Angeles
 - **Division 13** 920 N Vignes St, Los Angeles
 - **Division 15** 11900 Branford St, Sun Valley
- Selection criteria included the current ZEB transition sequence, equity considerations, capital cost, utility territory, site quality, solar / energy storage potential, etc. *A list of the Alternative Delivery Project Division Bundle selection criteria can be found in the Appendix.*
- **Facilities Assets & Management Systems:** Include a general scope for facilities and technology assets from the meter to the vehicle (e.g. structures, DERs, management systems, charging equipment, etc.) to deliver the full CaaS ecosystem and ensure a single investment and intervention. Balance SGR upgrades and non-revenue / employee charging against cost/benefit.
- **Vehicles & Fleet Assets:** Include vehicles for further examination under the alternative delivery scope

Alternative Delivery Project Scope Recommendation Continued

- **Utility Coordination:** A key risk and schedule driver for the whole program (not only for alternative delivery). Develop programmatic utility engagement strategy (i.e. inter-agency MOU)
- **Service Planning Impacts & Continuity of Service:** Engage Service Development at least one year prior to commencement of construction to ensure temporary service plan ready six months prior



06

Next Steps

ZEB Alternative Delivery Pre-Procurement Work Plan Next Steps

- Advance to next phase of the Work
 - Frame-out general parameters of the CaaS Developer scope
 - Frame-out procurement approach for a collaborative process to engage a Developer
 - Develop alternative delivery options assessment that outlines scope and procurement strategies
 - Develop procurement options assuming vehicles included while retaining off-ramps
 - Estimate project costs and payments associated with alternative delivery options
- Advance utility strategy to streamline coordination with LADWP, prepare project-level agreement, and execute prior to any procurement
- Investigate CEQA permitting requirements and develop compliance strategy prior to any procurement

The background of the slide is a photograph of a city street, likely Los Angeles, featuring a multi-lane highway with a curved overpass, palm trees, and various city buildings. A semi-transparent blue filter is applied to the entire image. A solid vertical blue bar is positioned on the left side of the slide, partially overlapping the letter 'A'.

A

Appendix: Alternative Delivery Project Division Bundle Selection Criteria

Alternative Delivery Project Division Bundle Selection Criteria

- The following evaluation criteria were identified to select the preferred Division bundle (with potential backup locations) among remaining Divisions (1 / 2 / 3 / 5 / 7 / 13 / 15):

- | | |
|---|---|
| 1. <i>Current transition sequencing / delivery schedule</i> | 10. <i>Site quality</i> |
| 2. <i>DACs & equity consideration/priority</i> | 11. <i>Environmental approvals / permitting needed</i> |
| 3. <i>Capital costs</i> | 12. <i>Dependency on other Divisions during transition</i> |
| 4. <i>Utility territory</i> | 13. <i>Service impacts during construction</i> |
| 5. <i>Utility coordination anticipated lead time</i> | 14. <i>Construction optimization/complexity opportunity</i> |
| 6. <i>Available power & Utility upgrade needs (anticipated loads at Division)</i> | 15. <i>Design Progress</i> |
| 7. <i>Solar potential at Division location</i> | 16. <i>O&M optimization/complexity opportunity</i> |
| 8. <i>DER readiness / real estate needs for solar/storage</i> | 17. <i>On-route charging needs</i> |
| 9. <i>ZEB fleet size / service out of Division</i> | 18. <i>On-site labor / Metro functions at each Division</i> |
| | 19. <i>Co-location potential for other Metro functions</i> |