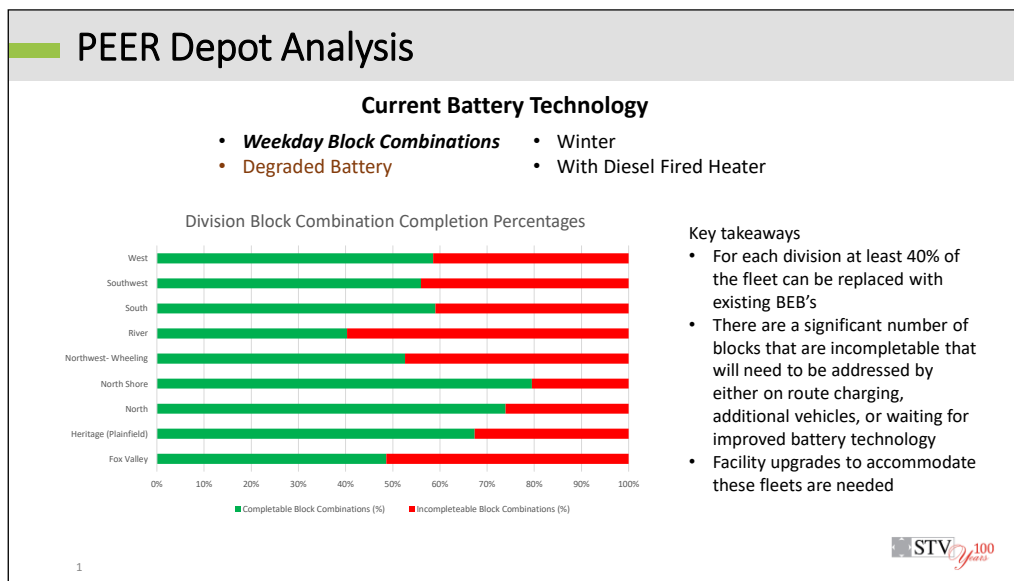


Combined Planning and Infrastructure Committee Meeting Summary

STV, Pace's Priority Project Management Office consultant has assembled a team of highly qualified individuals with extensive experience with fleet electrification and facility master planning at peer agencies such as Los Angeles Metro, CTransit in Hartford, Omnitrans in San Bernardino, MARTA in Atlanta and NCTD in San Diego.

At the June 29th combined Planning and Infrastructure Committee meeting, STV gave a presentation summarizing the progress on the Fleet Electrification Transition and Facility Plan. This planning effort is a comprehensive evaluation of Pace's operating needs and how they may be met given the characteristics of current and future battery electric bus technologies then taking this information a step further, defining the modifications necessary for Pace operating divisions to accommodate electric fleets. At the meeting, STV presented the preliminary site layouts for Pace's North and River Divisions and explained how electric buses will be accommodated at both. While this work is exciting, it is not without its challenges. For example, STV outlined that while 40% of Pace's existing routes could be operated using battery technologies that exist today, demand and supply chain issues have significantly impacted the availability of battery electric buses in the marketplace. Additionally, Pace will need to fund, design, and modify operating divisions to install charging infrastructure. This charging infrastructure will then require coordination with ComEd to ensure the necessary power supply and back up generation is provided to the various properties. In the coming months, the committee looks forward to viewing more plans for the remaining Pace operating divisions and is committed to supporting staff as they work through these challenges.

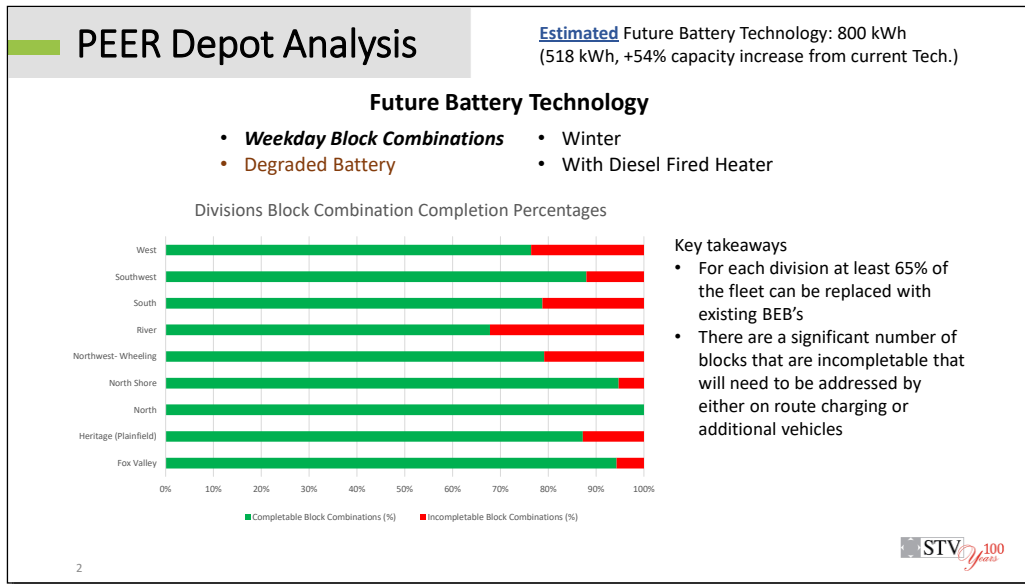
Slide 1



A vehicle block is a sequence of trips made by a single bus. It can be operated by one or more operators and may incorporate multiple bus routes. Vehicle blocks are developed by Pace's Scheduling Department taking into account the distance a vehicle can travel once it leaves the garage for the day and the amount of time an operator is able to work.

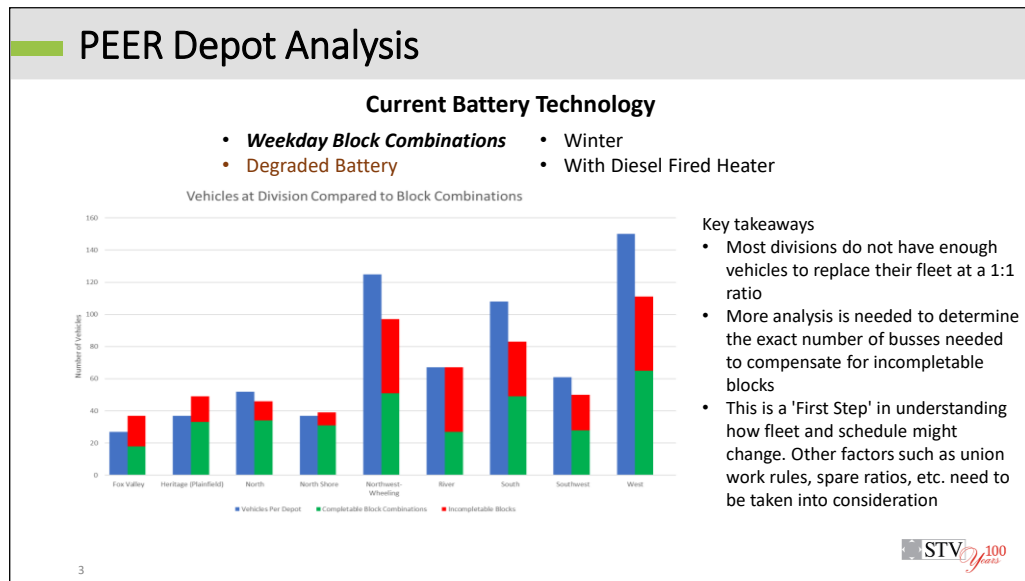
This slide summarizes that 40% of existing Pace vehicle blocks can be completed on a single charge using a 500 kWh battery that is currently available on the market.

Slide 2



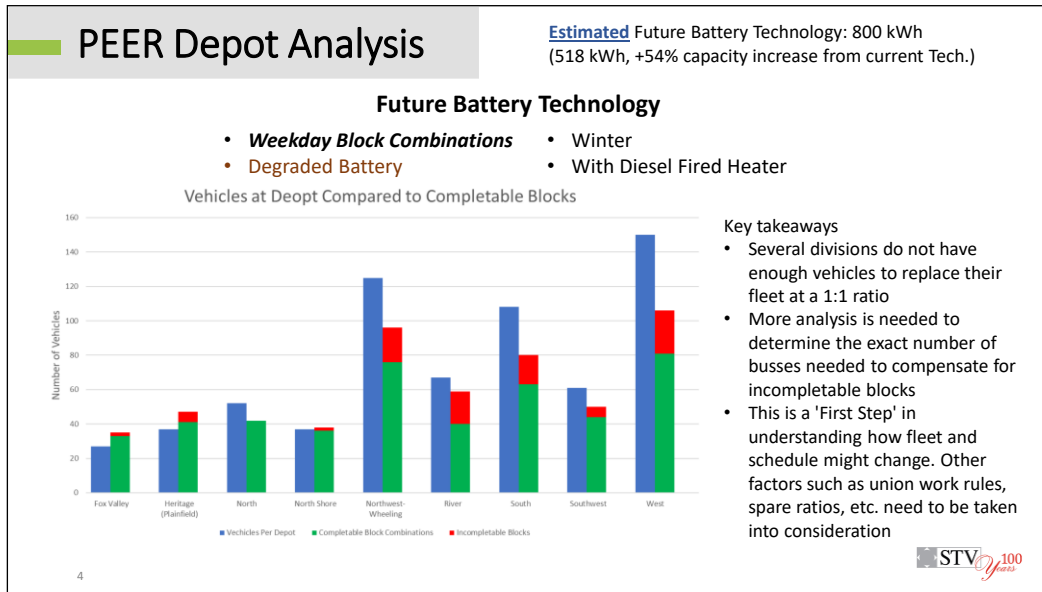
It is anticipated that in approximately 5 years 800 kWh will be available in battery electric buses. This slide summarizes that once this battery technology is available, Pace will be able to perform 65% of blocks on a single charge.

Slide 3



In some instances, Pace operating divisions will require more vehicles to maintain service levels given the mileage limitations of battery electric buses. This slide represents the number of electric buses needed vs the current number of buses at each division based on existing battery technology. Future analysis determining the appropriate number of spare electric buses is required and will increase the numbers shown on this chart. This information will be used to plan for future garage facility expansions.

Slide 4



This slide summarizes the same vehicle count information by Pace operating division but using future battery technology.

Slide 5

Challenges

- **Supply Chain**
 - Pandemic related impacts to vehicle subcomponents and employment
- **Availability of vehicles**
 - Limited number of ZEB manufacturers and manufacturing facilities
 - California and Federal mandates: every agency needs ZEBs
- **Power grid**
 - Limited capacity of existing power grid
 - Existing substations distant from Pace bus divisions
- **Coordination and timelines with utilities**
 - How much power? Where? When?
 - Higher demand loads can take over two years to engineer and construct
 - Continue meetings with ComEd
- **Aligning Service with ZEB Capabilities**
 - Applying PEER analysis to Pace bus services
 - Aligning transition to BEB range limitations
 - Acknowledge and apply Work Rules
- **Emergency Operations**
 - Evaluate charging needs in case of an emergency power outage

This is a summary of the various challenges to implementation.