

# Standardization Working Group Report

How Should Standardization Be  
Implemented by the NGEC



# Introduction

- Who was on the group?
- What is the issue that led to the concern?
- How has it been addressed to date in specifications?
- Inherent conflict in the requirements of the NGEC
- What is the impact on customers/operators/suppliers of this concept?
- What are the options when defining standardization?
- Proposed Approach

# Who Was Part of the Group?

- Three voting representatives
  - Representative of the states - Stan Hunter
  - FRA - Kevin Kesler
  - Amtrak - Dale Engelhardt
- Facilitated by outside support
- Additional support brought in by the representatives as required
- Met at least every two weeks
- Discussed the various factors impacting the issue and produced a report on proposed way forward

# What is the Issue to be Addressed?

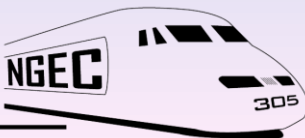
- Standardized equipment is identified in PRIIA as a goal.
- What does standardized mean?
- What problems are currently experienced that need to be solved?
- What are the benefits of standardization and what downsides can it have?
- How do we determine when a standard is beneficial?
- How does this relate to the work that has already been undertaken?
- Who will manage this issue going forward?

# How Is Standardization Dealt With in the Current Specifications?

- Standardization is covered to some extent in the current specifications
- Interoperability is dealt with in current specifications
- Performance requirements are standardized
- A number of potential standard components are identified in the specifications but equivalent performing alternates are also allowed.
- Customer options are a separate section beyond the core specification

# What Does PRIIA Require?

- Section 305 of PRIIA requires specifications and acquisition of standardized equipment
- It does not define what standardized should mean
- It requires the involvement of states, Amtrak, the FRA, manufacturers, infrastructure owners and other interested parties in developing requirements
- By soliciting what manufacturers have to offer, there is an inherent conflict with the need to standardize
- While not written, there is an underlying desire to promote the production of intercity rail vehicles domestically



# Impacts of Standardization

- Standard equipment/systems has impacts on both the operator and the manufacturing base and these can be positive or negative
  - Reduced spare parts inventories
  - Simplified training requirements
  - Easier exchange of equipment between operations
  - Potential to reduce life cycle costs, even if acquisition cost is increased
  - Advantage to incumbent suppliers
  - Less opportunity for suppliers to develop competitive advantage
  - Reduced scope for innovation
  - Management of Intellectual Property
  - Lack of clarity as to how long a standard should remain a standard
  - Transfer of risk from suppliers to operators
  - Sole ownership of obsolescence issues
  - Pressure on capital budget when trading off upfront cost against life cycle benefits

# Options for Standardization

- Standard in the creation of specifications and the performance requirements specified
- Creation of a standard car
- Standardization of major systems
  - Definition of a standard design either existing or to be created
  - Definition of interface requirements and performance standards for interchangeability
- Do nothing and allow the industry to define its requirements



# Chosen Solution

- Two part approach to standardization
  - Standardization of the structure and performance requirements of specifications
  - Establishment of a process for the selection of standardized systems/components
  - Option is open as to whether an interface standard is utilized or a component is defined
  - Existing systems or new requirements could be chosen
- The first part is already in place and is reflected in the specifications developed/being integrated to those in work
- The Technical Subcommittee will lead this process but will work in partnership with the Finance Subcommittee in evaluating the financial case for the life cycle cost/benefits

# Standardized Systems/Components

- Define a process for selection of a standard
  - Identify candidate systems for standardization
  - Identify how long the system would be considered a standard and how much of the fleet would be affected
  - Define the life cycle costs of such a system without standardization
  - Create a comparable life cycle cost for a standardized alternative approach
  - Validate the model with the finance subcommittee
  - Commence selection of a standard either through creation of a new system or vendor selection
  - Take the actual costs from the selection process and revalidate the life cycle assumptions
  - Adopt the standard or reject as appropriate

# What Happens When Standard Systems are Selected?

- Once a standard is defined it will be added back to the existing specifications as appropriate
- All operators acquiring equipment against the specification will be required to use the standards contained therein
- The Technical Subcommittee will be responsible for managing those standards and for determining if/when any changes to those standards are required/beneficial

# What we need now?

- Executive Board to accept the recommendations of the working group
- Approve the Tech Subcommittee to commence the development of the processes and to start reviewing systems
- Technical Subcommittee to commence that process and work with the Finance Subcommittee to implement
- Acceptance that the existing specifications will be updated as the results of this work are available

Next Generation  
Equipment Committee

