



Climate Change & Rail Projects

Analyzing Adaptation in NEPA Documents for FRA Projects

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NEPA & Climate Change

- * National Environmental Policy Act of 1970
 - * Requires Federal Agencies to analyze environmental impacts of their actions
 - * Created the Council on Environmental Quality (CEQ)
- * Climate change guidance by CEQ will soon be finalized
 - * Analysis of GHG emissions
 - * Impacts of climate change on the Agency action

Analyzing Climate Change in FRA NEPA Documents

- * Generally, GHG emissions (CO₂) are already being reported
 - * Fewer emissions than other modes
 - * Increase of emissions with construction, offset over time by operations
- * California HSR and NEC Future project developed approaches to examine climate change impacts

Climate Change Threats to Rail Infrastructure

- * Sea Level Rise & Flooding
 - * Rail often located in floodplains or along rivers
 - * Utilizes tunnels or below grade track
- * Heat
 - * Track bends from thermal expansion
 - * Equipment issues
- * Storms
 - * Power outages
 - * Track blockage

Analysis in Current CA & NEC Future EISs

- * California (CEQA Requirements)
 - * GHG Emissions
 - * Flooding, if applicable
- * North East Corridor (NEC) Future
 - * GHG Emissions
 - * Heat impacts
 - * Extreme high temps
 - * Average high temps
 - * Flood threats
 - * Resiliency for storm surge on coastal areas
 - * Flood impacts in flood plains

Going Forward

- * Develop Climate Change analysis methodology
 - * GHG equivalent measures
- * Include additional analysis
 - * Construction and operation emissions
 - * Impacts on rail operation
 - * Storm impacts
 - * Power issues
 - * Intermodal connections

Rail's Inherent Resiliency

- * Not as susceptible to delays from winds, ice & snow, or fog as air travel
- * Smaller footprint and more limited network than roadways
- * Doesn't require as extensive blizzard rescue operations as highways can
- * Power can be an issue for electrified tracks
- * Blowdowns and track blockages are problematic
- * Maybe be able to recover quicker than other modes

QUESTIONS