

Tennessee Valley Authority

Presentation to the Southern States Energy Board

Dr. Joe Hoagland
Vice President
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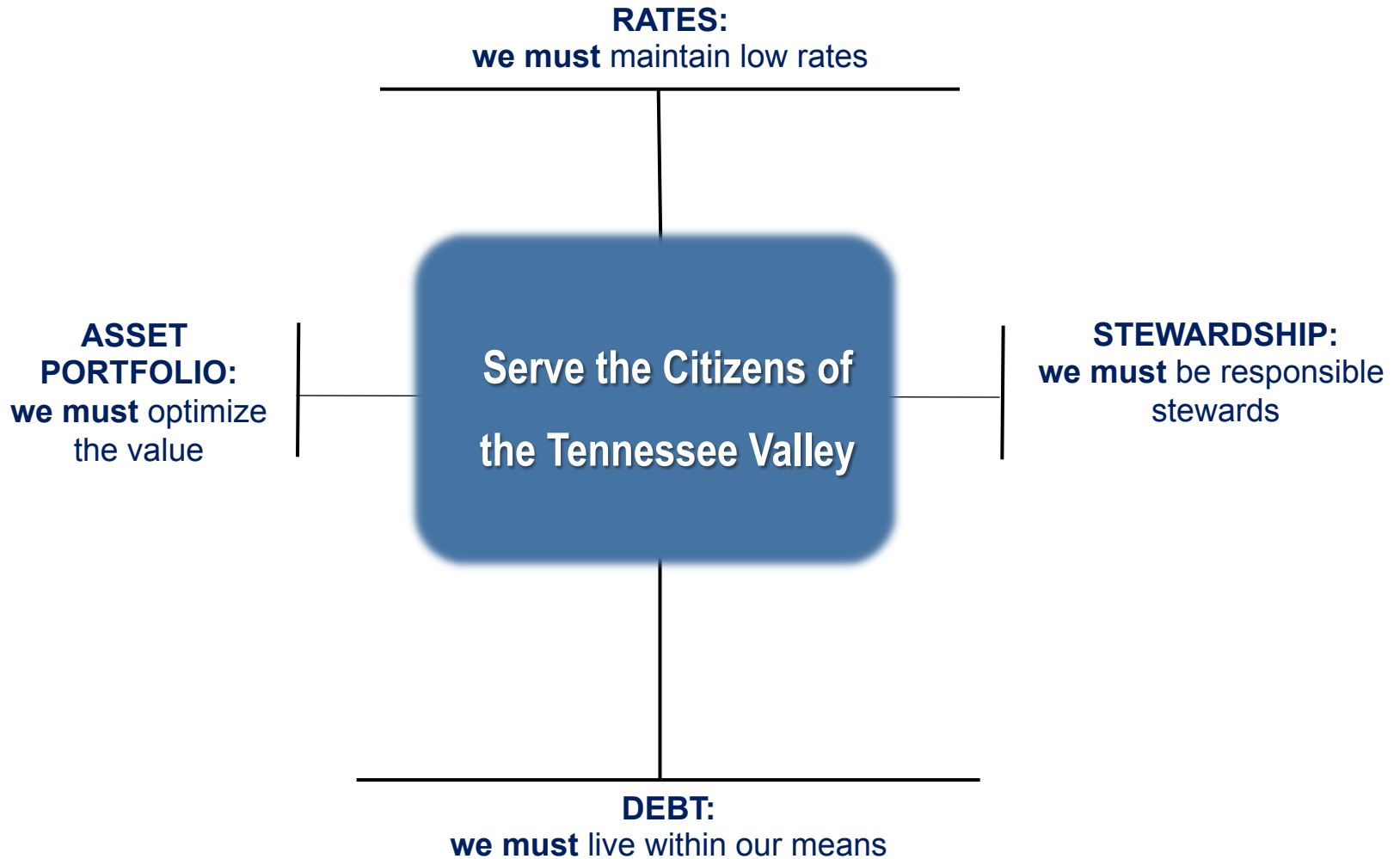


1933 –*Franklin D. Roosevelt signs the TVA Act*

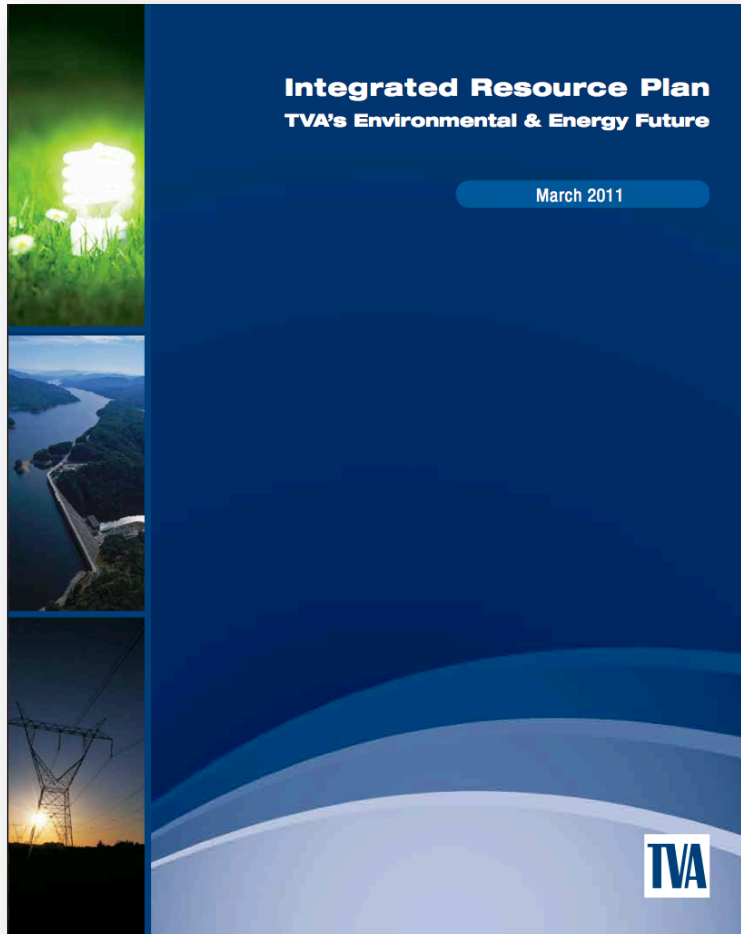
- ◆ Provide low-cost power
- ◆ Improve navigation and provide for flood control
- ◆ Provide for reforestation and the proper use of marginal lands
- ◆ Provide for agricultural and industrial development
- ◆ Provide for the national defense
- ◆ Technological innovation
- ◆ Environmental stewardship



TVA Business Imperatives



2011 Integrated Resource Plan Provides the Highway



TVA's Integrated Resource Plan (IRP)

- ◆ Guides energy resource planning
- ◆ Balances costs and risks to benefit all stakeholders
- ◆ Allows flexible responses to change
- ◆ Reduces environmental impacts

Current Resource Plan

 **Nuclear generation**

 **Coal capacity**

 **Natural gas as an intermediate supply source**

 **Energy efficiency and demand response**

 **Cost-effective renewable energy**

 **Pumped storage hydro capacity**

Balanced Portfolio Created Best Option

TVA The Challenge: an Electric System that is Multidirectional

Evolving Reality: Renewables, energy efficiency (EE), distributed generation, demand response (DR) managed by multiple entities

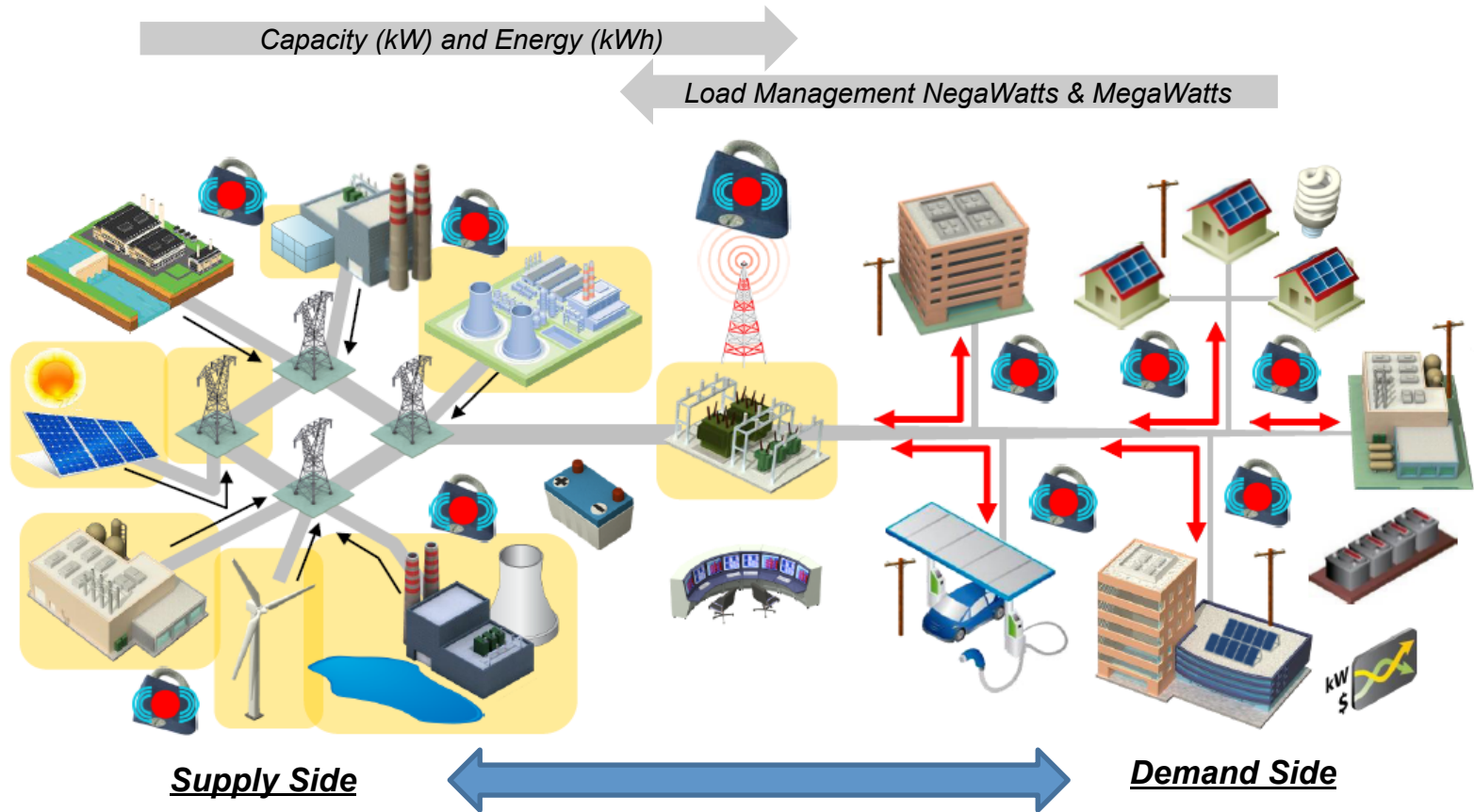
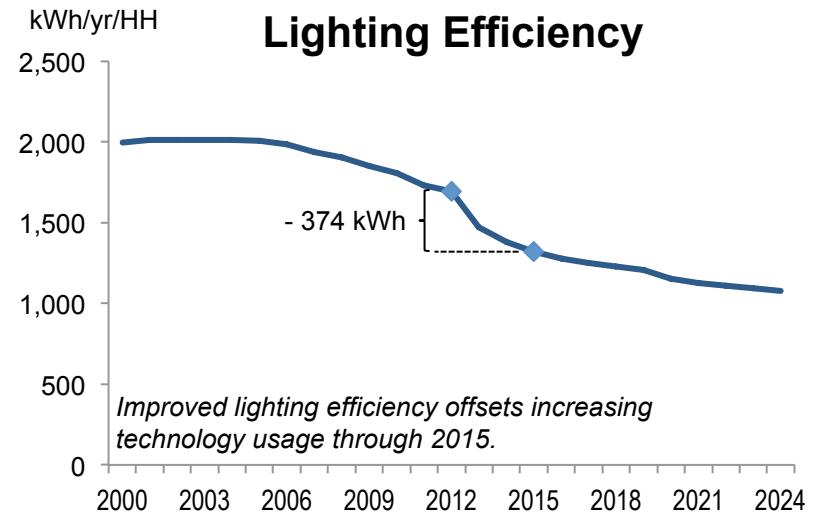
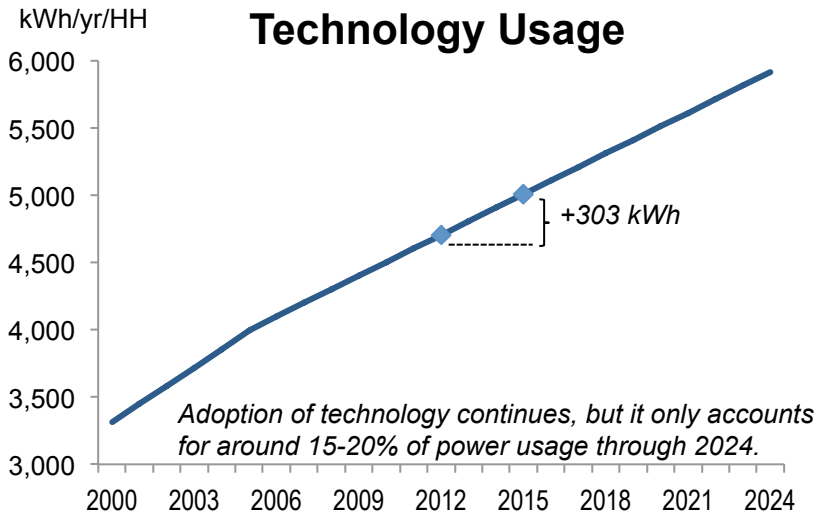
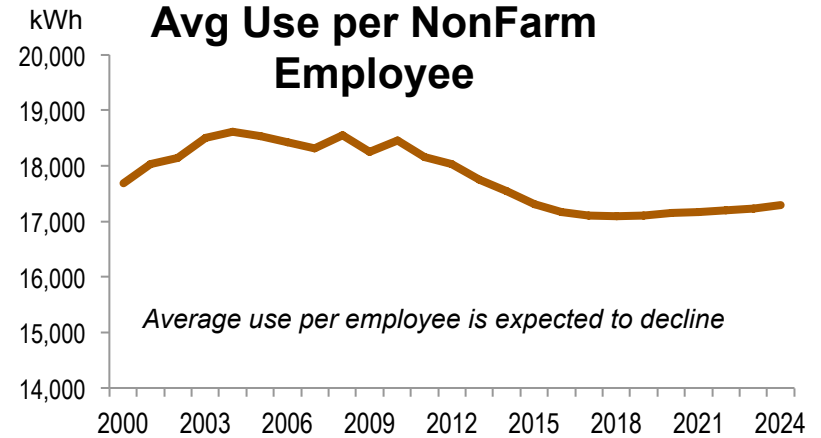
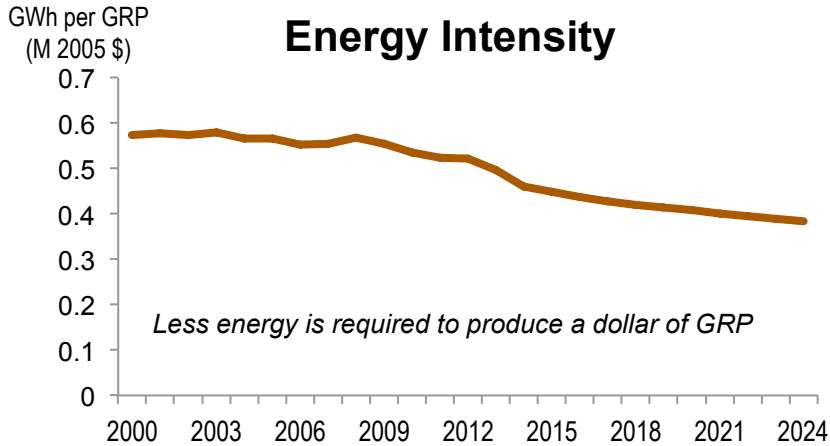


Image Source: EPRI



Trends Toward Economic and Energy Efficiencies Continue

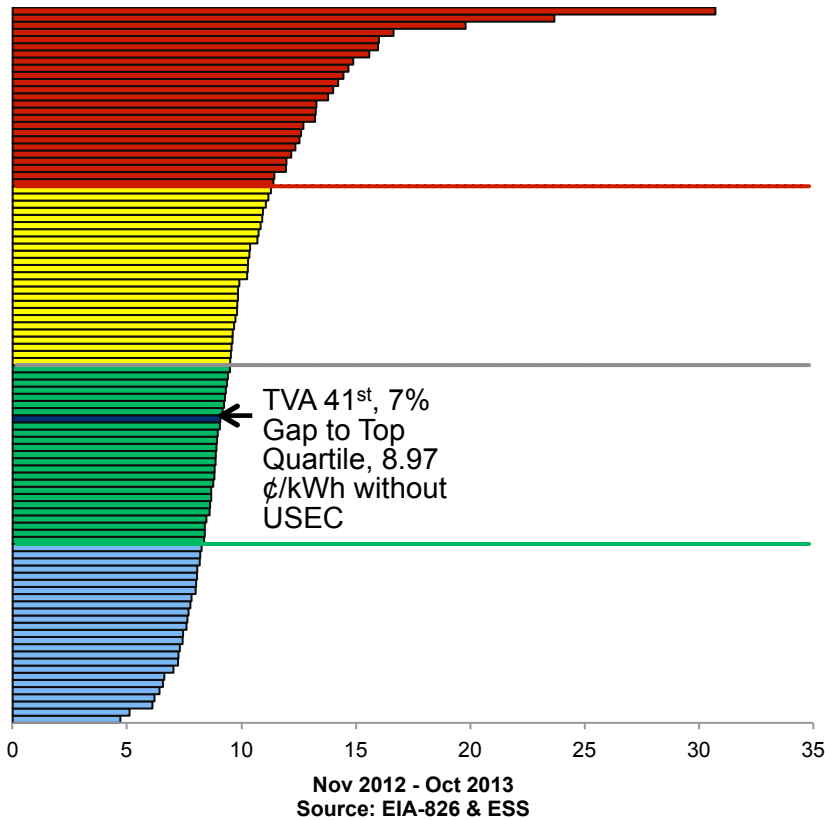




Rate Competitiveness: Still Critical

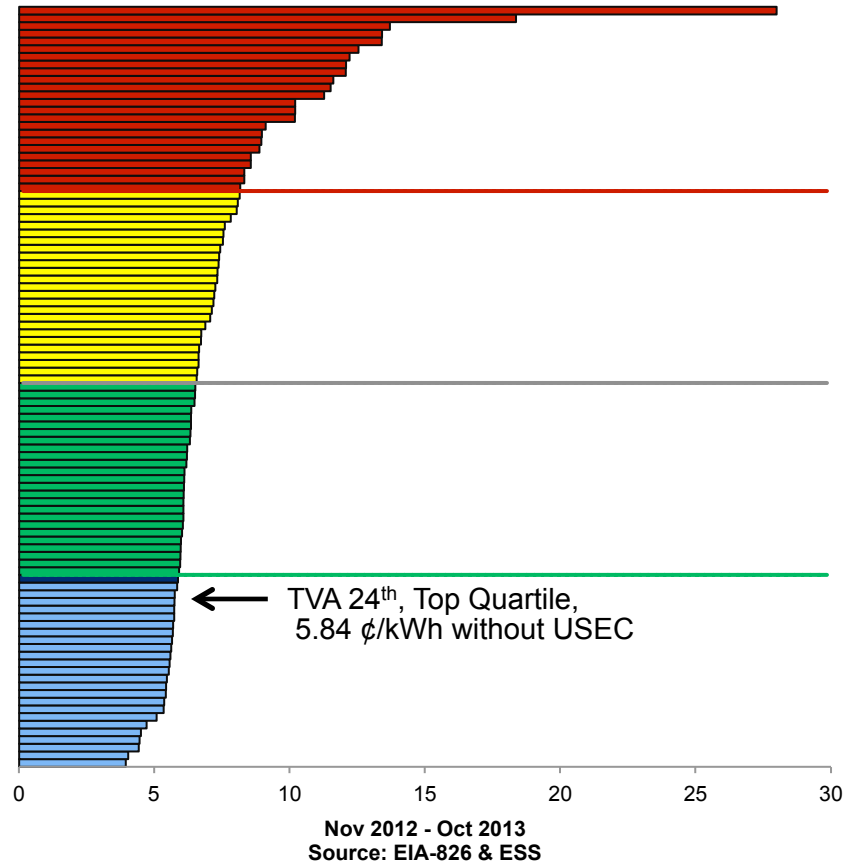
12-Month Average Retail Rate (¢ / kWh) of the Top 100 U.S. Utilities

Top Quartile = 8.30 Median = 9.50 Bottom Quartile = 11.20



12-Month Average Industrial Rate (¢ / kWh) of the Top 100 U.S. Utilities

Top Quartile = 5.90 Median = 6.50 Bottom Quartile = 8.10

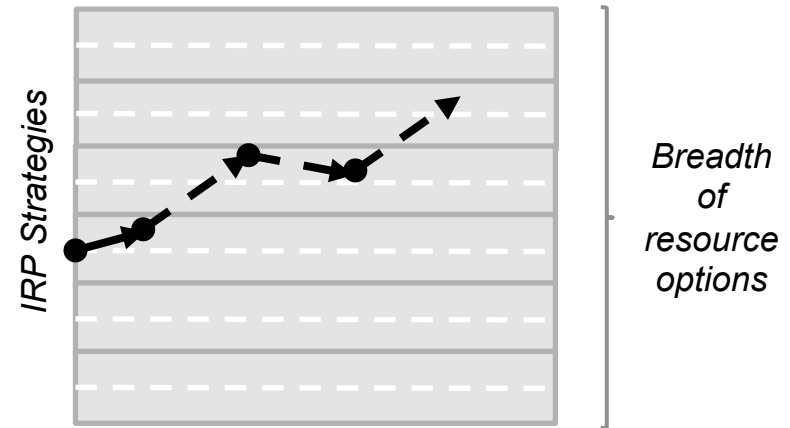


In general, the gap to top quartile among the nation's Top 100 Utilities will be lower than those of the regional peers because the Southeast region on average has lower rates than the nation as a whole.

TVA Changes Drove the Need to Refresh the 2011 IRP

- ◆ While the recommendations from the 2011 IRP study remain valid, significant changes nationally and regionally occurred that motivated TVA to refresh the study now, such as
 - Abundant natural gas
 - Decline in electricity demand growth
 - New schedule for completing Watts Bar Nuclear Unit 2
 - TVA's clean-air commitments
- ◆ TVA elected to refresh the IRP analysis about a year ahead of schedule to better position the utility to respond to future uncertainties

Building a “Multi-lane Highway” of Flexibility



2015 IRP Timeline

