2015-2019 Custom Distribution Rate Application
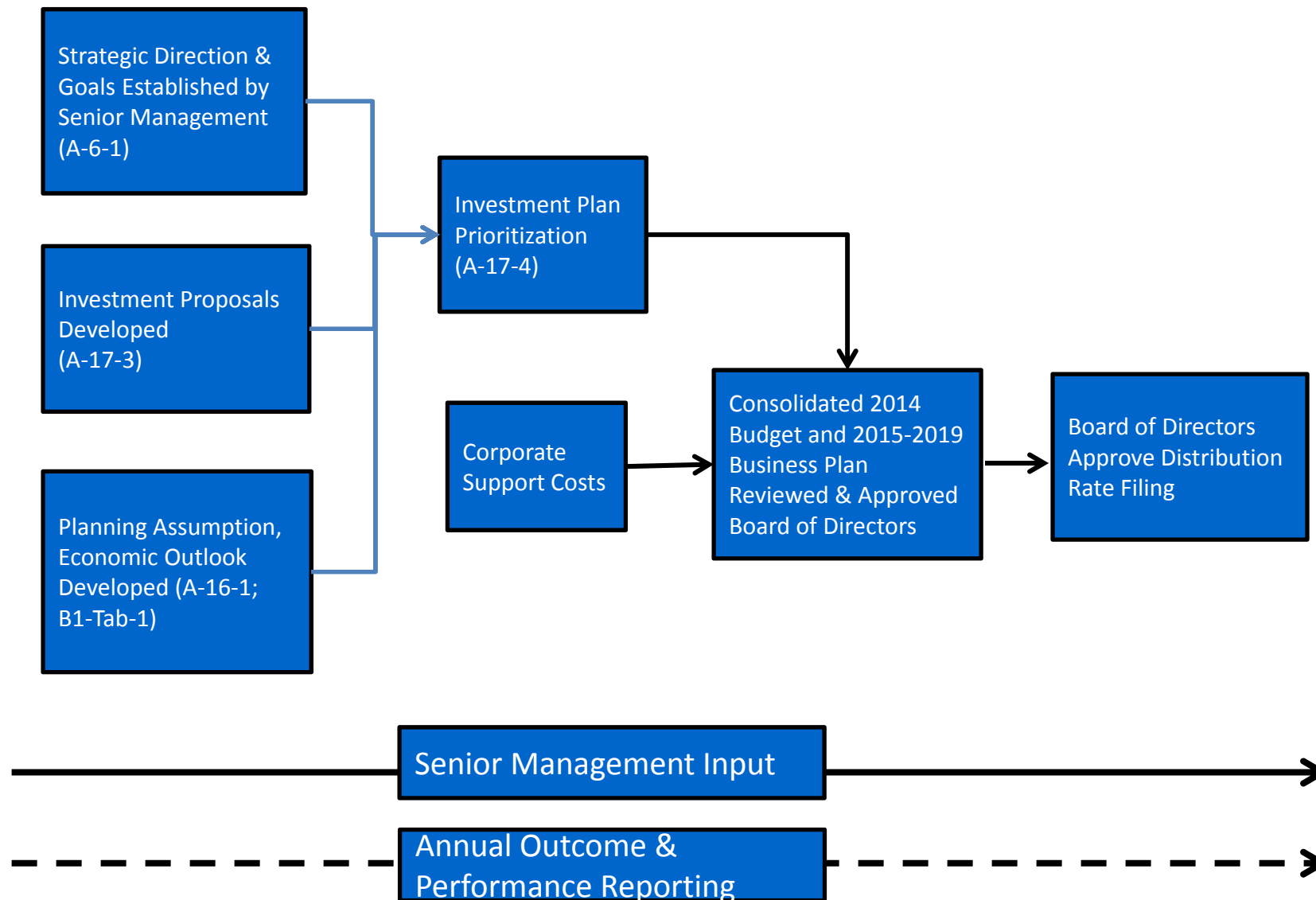
Distribution System Plan

Paul Brown

Director, Distribution
Asset Management

hydro one

The Planning Process (A-17-1)

Strategic Direction & Goals Established by Senior Management (A-6-1)

Investment Proposals Developed (A-17-3)

Planning Assumption, Economic Outlook Developed (A-16-1; B1-Tab-1)

Investment Plan Prioritization (A-17-4)

Corporate Support Costs

Consolidated 2014 Budget and 2015-2019 Business Plan Reviewed & Approved Board of Directors

Board of Directors Approve Distribution Rate Filing

Senior Management Input

Annual Outcome & Performance Reporting

Developing Investment Proposals
(A-17-3)

- **Determine customer needs** through customer satisfaction and transactional research (A-5-1)

- **Collect and analyze system data** during routine maintenance and inspections and technical assessments

- **Assess needs** with a view to mitigating risk associated with failure while maintaining performance and satisfying customer expectations

- **Identify investment alternatives** with emphasis on identifying best value alternatives and bundling opportunities

Selection/Prioritization/Pacing
(A-17-4)

- **Selecting Investments through Asset Risk Assessment**
  - Address customer, system growth and renewable generation needs
  - Renew end-of-life assets to ensure safety and service continuity
  - Maintain Q4 reliability/ improve efficiency
  - Modernize distribution system to add customer value
  - Effectively respond to unplanned system events
- **Pacing/Prioritization/Optimization of Investments**
  - Asset Investment Planning Tool include parameters set by Hydro One planners on a case-by-case basis
  - Managerial consideration of customer needs and program/project risk

Asset Risk Assessment

(A-17-4)

- Asset Analytics is a tool used by planners in the Asset Risk Assessment process
- Asset data at a glance by feeder/station/class of assets
- Aligning asset groupings to fit Regional Planning Process
- Streamlines the identification of higher risk assets
- Assists in determining the most cost effective remedial action a high risk asset requires
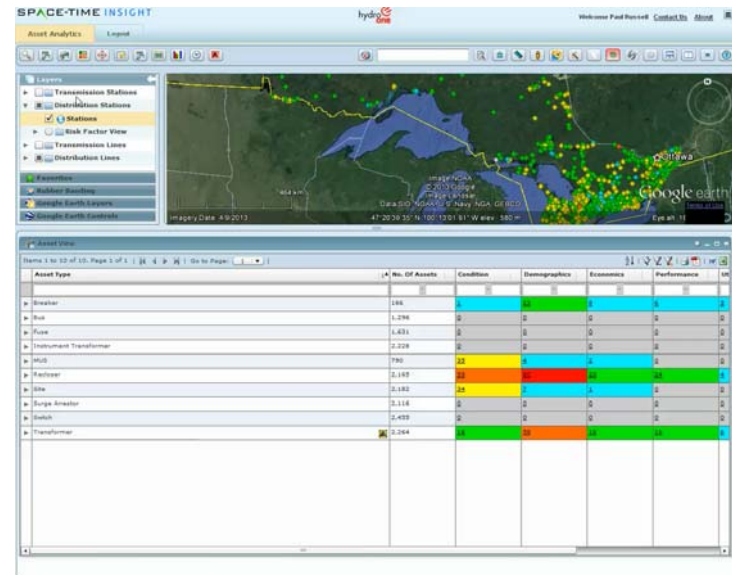
Asset Analytics Risk Factors

6 risk factors are colour coded on a red to blue scale to give a visual representation of asset risk. Risk factors for a given asset are calculated relative to assets of the same type.

High risk _____ Low risk

1. **Condition Risk** reflects probability of failure due to the degradation of condition over time.

2. **Demographic Risk** reflects the probability of failure based on a particular make, manufacturer, and/or vintage of an asset.

3. **Economics Risk** reflects the economic evaluation of the ongoing costs to operate an asset.

4. **Performance Risk** reflects the historical performance of an asset.

5. **Utilization Risk** reflects the deterioration rate of assets that are highly utilized.

6. **Criticality Risk** represents the impact that an asset's failure has on the distribution system, specifically, the number, type and size of impacted customers.

Asset Analytics

Asset Analytics Demonstration

Play video

Asset
Analytics