

Maritime Link Technical Conference

October 28, 2013

Boundless Energy



Paul Humphries: Vice President System Operations and Planning Newfoundland and Labrador Hydro

Responsibilities

- Operation of Provincial Energy Control Centre
- Generation, Transmission and Distribution Planning for both the Island and Labrador systems
- Leading the integration of Muskrat Falls , Labrador Island Link and the Maritime Link with the existing Labrador, Island and Maritime power systems

Outline

- Provide a brief overview of the resource planning process in Newfoundland and Labrador
- Explain why Nalcor is confident in its ability to make available to Nova Scotia on average at least 1.2 TWh of surplus energy per year between 2017 and 2041

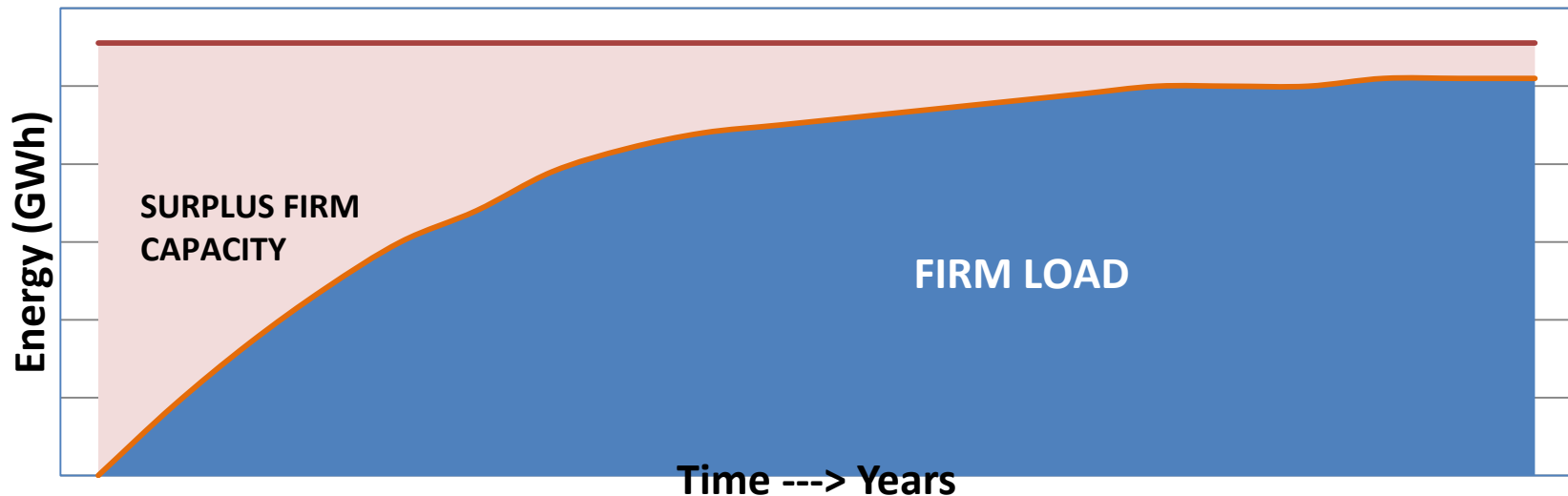
Newfoundland and Labrador Resource Planning

Planning Criteria:

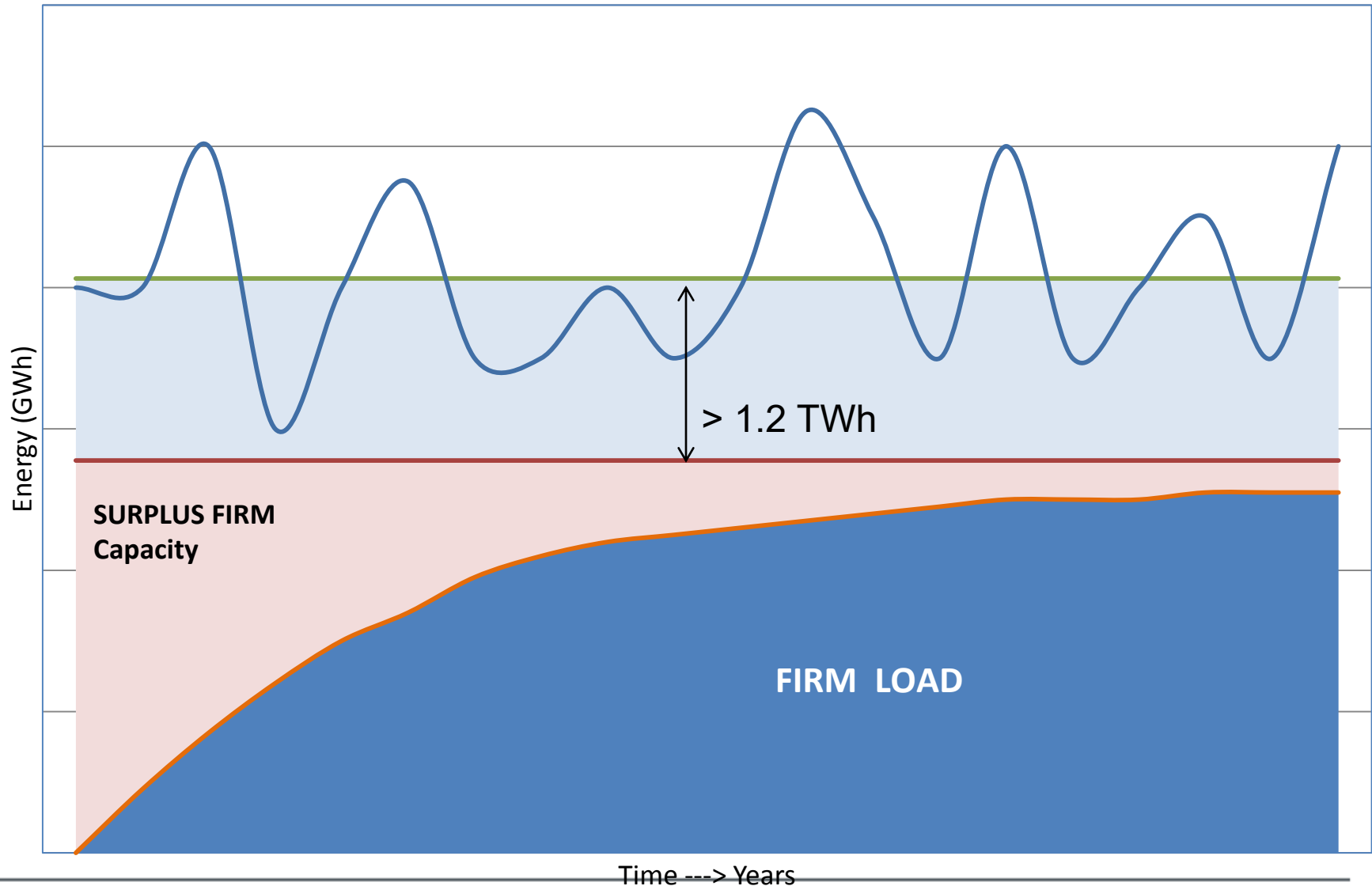
Capacity: The Interconnected System should have sufficient generating capacity to satisfy a Loss of Load (LOLH) expectation target of not more than 2.8 hours per year.

Energy: The Interconnected System should have sufficient generating capability to supply all of its firm energy requirements with firm system capability

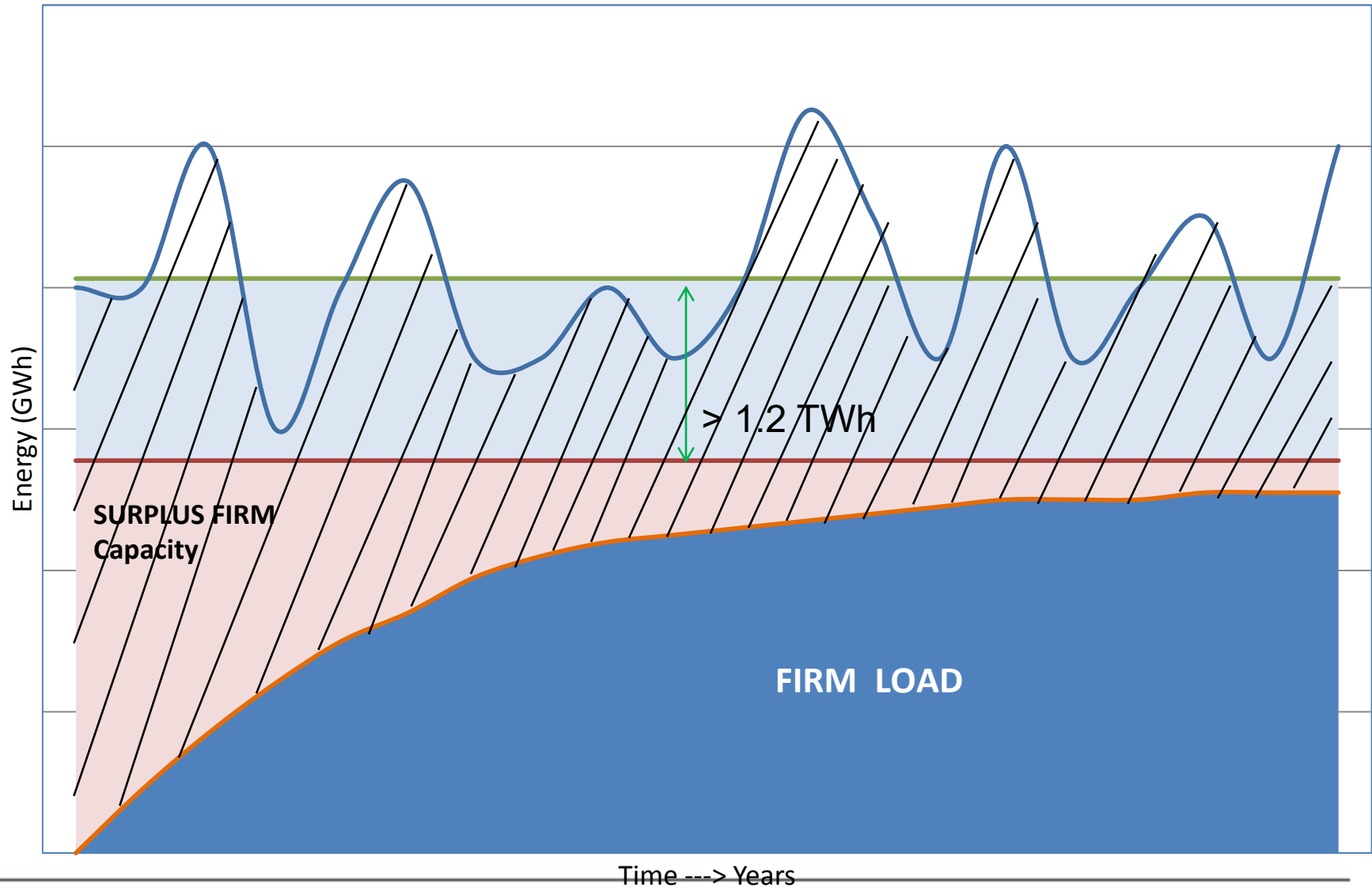
Where: in the case of hydroelectric resources Firm System Capability is defined as the lowest sequence of reservoir inflows occurring within the historical record.



Total Energy (Firm + Variable)



Total Energy (Firm + Variable)



Facts about Variable Energy

- Predictable over time - 60 years of hydrological record
- Even absent any surplus firm energy, Nalcor is confident that the average 1.2 TWh will be available and, together with Emera, has committed to do so.