

Integration of Repowering Studies and the LIPA Energy Master Plan



Stakeholders Committee Briefing

April 11, 2008

www.lipower.org

Briefing Outline & Planning Process Objectives

Meeting Objective

To explain how the repowering analyses will be integrated with the LIPA Energy Plan

Briefing Outline

- Process Methodology
- Planning Metrics

Planning Process Objectives

- Support LIPA's objective of providing economical, reliable power in a safe and environmentally sound manner
- Support the Decision Making Processes
 - ▶ Timely analysis
 - ▶ Capture the impacts on LIPA ratepayers and the environment
 - ▶ Provide the essential information needed for decisions
- Consistency with State Policy
 - ▶ Renewable Portfolio Standard
 - ▶ Energy Efficiency Portfolio Goals
 - ▶ Renewable Energy Task Force recommendations



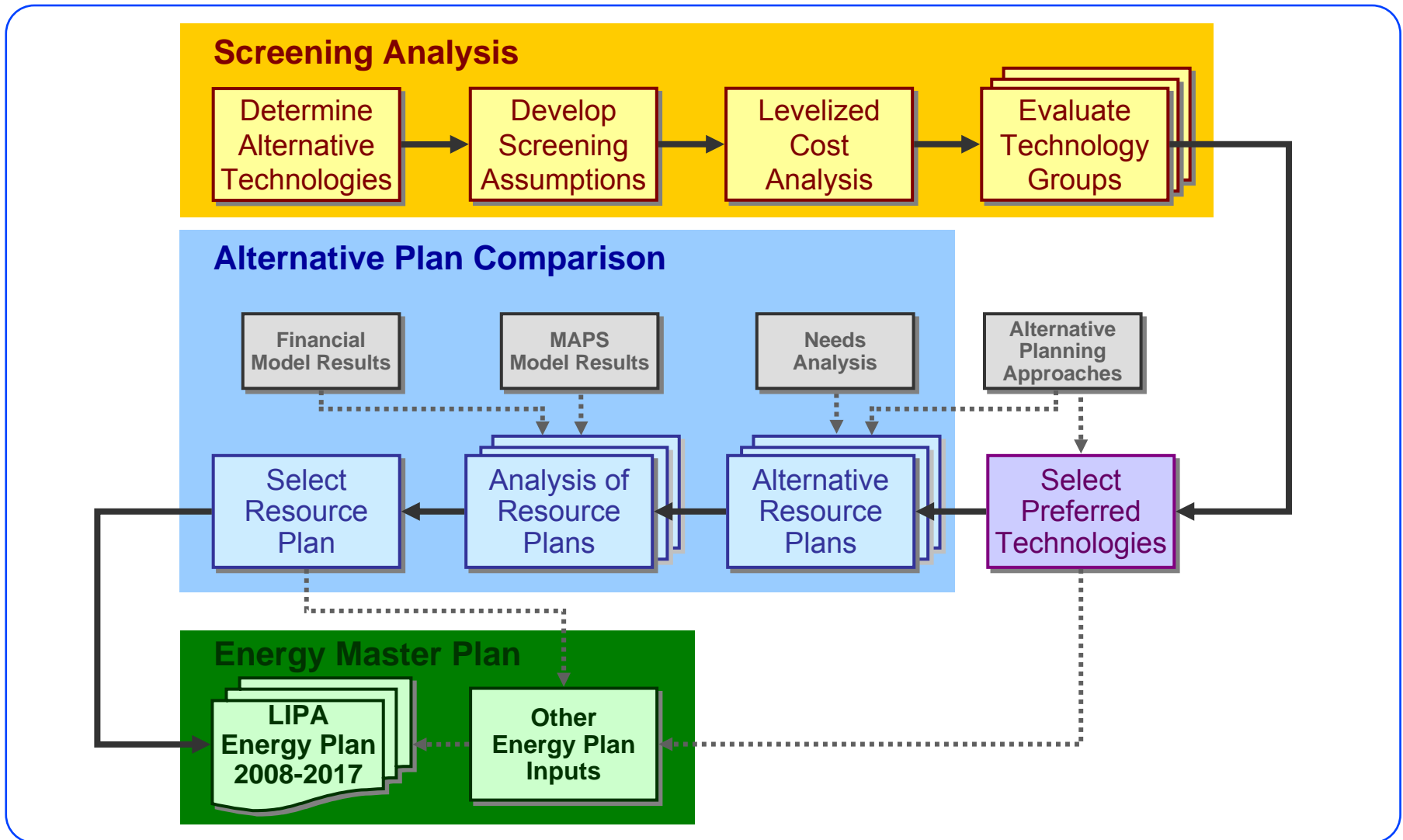
Process Methodology

Process Overview

- The Power Supply Portion of the LIPA Energy Master Plan is intended to be a comprehensive analysis of a broad spectrum of options
 - ▶ Repowering
 - ▶ Energy efficiency
 - ▶ New generation
 - ▶ Transmission interconnections
 - ▶ Retirement of existing generation

Analyses Elements
A screening analysis of various supply options on a stand-alone basis
A needs analysis that analyzes the need for new capacity based on a probabilistic analysis of supply risks
A comparison of alternative power supply plans based on an integrated analysis of selected supply options with the existing system
A sensitivity analysis of several alternative power supply plans
A probabilistic assessment of several alternative power supply plans
A selected plan to be pursued by LIPA

Process Methodology Modeling Systems



Energy Master Plan

- April 2008 - Draft Outline Hearings Completed
- May/June 2008 - Analysis Completed
- Summer 2008 - Publication of Draft Report
- Fall 2008 - Public Hearings on Draft Report
- Winter 2008/9 - Analysis for Final Report
- Early 2009 - Publication of Final Report

LIPA Repowering Alternatives

- May 2008 – Analysis Completed & Trustee consideration on Exercise of purchase options for Far Rockaway, Barrett, Wading River, and Shoreham

NP/PJ Repowering

- May 2008 – Preliminary Analysis Completed
- Early 2009 – Comprehensive Analysis Completed

Planning metrics will be used to compare alternative scenarios against a reference case

■ Economic Metrics

- ▶ Annual revenue requirements
- ▶ Annual average rates
- ▶ Net Present Value (NPV) total revenue requirements in 2009 dollars

■ Production Efficiency Metrics

- ▶ Average heat rate of LIPA contracted/owned resources

■ Reliability Metrics

- ▶ Surplus or deficit compared to projected NYISO locational requirement
- ▶ Surplus or deficit compared to projected LIPA's operational requirements (OP-CAP C)
- ▶ Surplus or deficit compared to probability weighted versions of NYISO and LIPA requirements

■ Environmental Metrics

- ▶ Projected SO₂ allowances compared to SO₂ emissions from LIPA contracted units
- ▶ Projected NO_x allowances compared to NO_x emissions from LIPA contracted units
- ▶ Energy weighted share of statewide CO₂ RGGI emissions allowance compared to CO₂ emissions from LIPA contracted units
- ▶ Total LIPA footprint of SO₂ emissions from LIPA contracted units plus market purchases of energy at ISO/RTO incremental emissions per MWh
- ▶ Total LIPA footprint of NO_x emissions from LIPA contracted units plus market purchases of energy at ISO/RTO incremental emissions per MWh
- ▶ Total LIPA footprint of CO₂ emissions from LIPA contracted units plus market purchases of energy at ISO/RTO incremental emissions per MWh
- ▶ Assess alternative plans on \$/ton of Carbon reduced or increased from the Reference Case