MAINE HYDROPOWER STUDY
Study Goals

• Resource Inventory
• Review of Regulatory Environment
Resource Inventory

• Conventional Hydropower
• Hydrokinetic
Conventional Hydropower

• Reviewed Powered and Unpowered Dams
• Phased Screening Approach
  – Started with 891 dams
  – Each iteration removed sites
  – Identified 110 sites with 193 MW capacity
    • Applying regulatory screening
    • 45 sites with 55 MW capacity
Location of Potential Hydropower
Findings

• Conventional Hydropower Potential Throughout State

• Uneconomic under Assumed Pricing
  – Energy value too low
  – Development costs too high
  – Did not include incentives, RECs, or other benefits
  – Hydro works on a different timescale
Marine and Hydrokinetic

- Tidal
- Wave
- River Hydrokinetic
Tidal Energy Inventory
Wave Energy Inventory
River Hydrokinetic Inventory
Assessment of Regulatory Environment

• Identification of Potential Barriers
• Review of Programs in other States
• Survey of Hydropower Developers
Hydro Regulatory Processes

- FERC Licensing
- State 401 Water Quality Certification
- Other Permitting Requirements
Input from Hydro Developers

- Regulatory Hurdles
- Financing and Economic Incentives
- Infrastructure Limitations
- Promotion of Hydropower
Recommendations
Conventional Hydro Studies

- Conduit Hydropower
- Minimum Flow Units
- Emerging Technologies
- Grid Interconnection
Hydrokinetic Studies

- Site Data Collection
- Maine Communities with High Cost of Power
- Infrastructure Projects
- Integration with Conventional Hydro
Regulatory Reforms

- State Hydropower Coordinator
- Review of Maine’s 401 Water Quality Certification Standards
Project Financing

- Maine RPS Requirements
- PUC and Long-Term Contracts
- State-Sponsored Financing Mechanism
- Modify Maine’s Capital Investment Program
- Amend Chapter 329