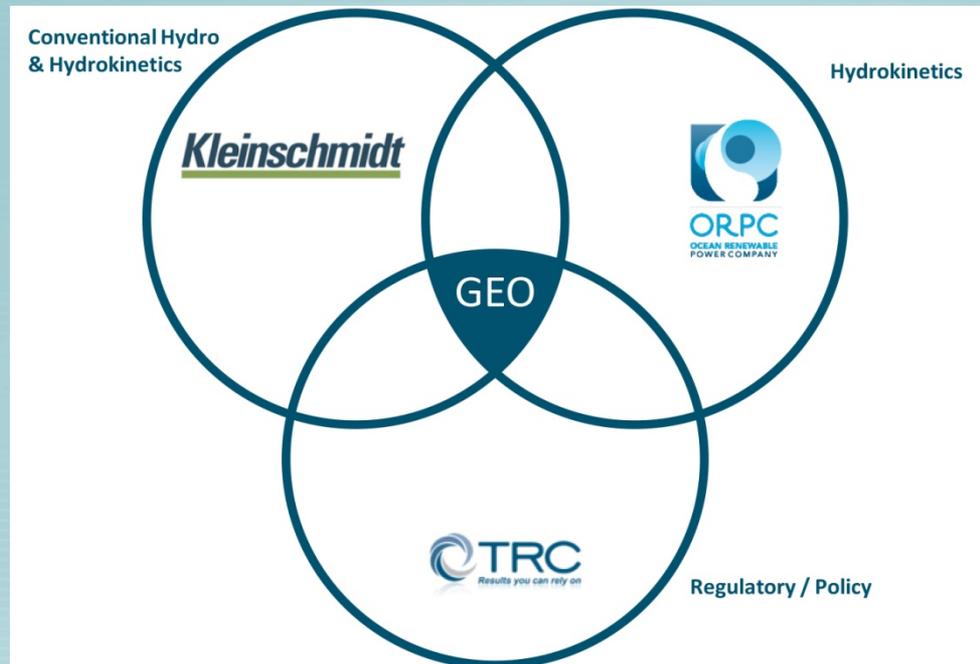


MAINE HYDROPOWER STUDY



Study Team

- Kleinschmidt Associates
- ORPC
- TRC

Study Goals

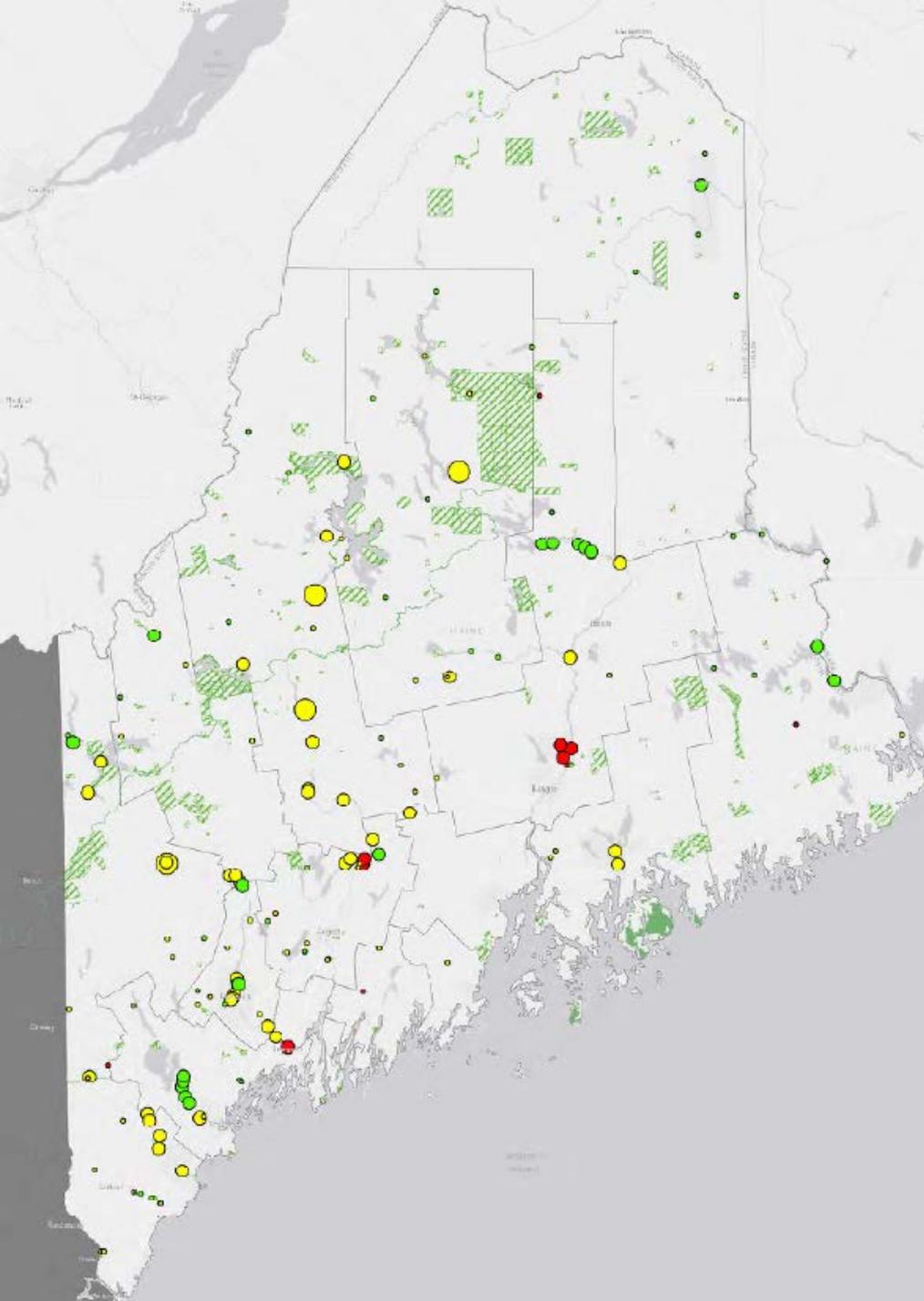
- Resource Inventory
- Review of Regulatory Environment

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
 - 47 sites with 56 MW capacity



Location of Potential Hydropower

Findings

- Hydropower Potential Throughout State
- Uneconomic Under Assumed Pricing
 - Energy value too low
 - Development costs too high

Marine and Hydrokinetic

- Tidal
- Wave
- River Hydrokinetic

Tidal Energy Technologies



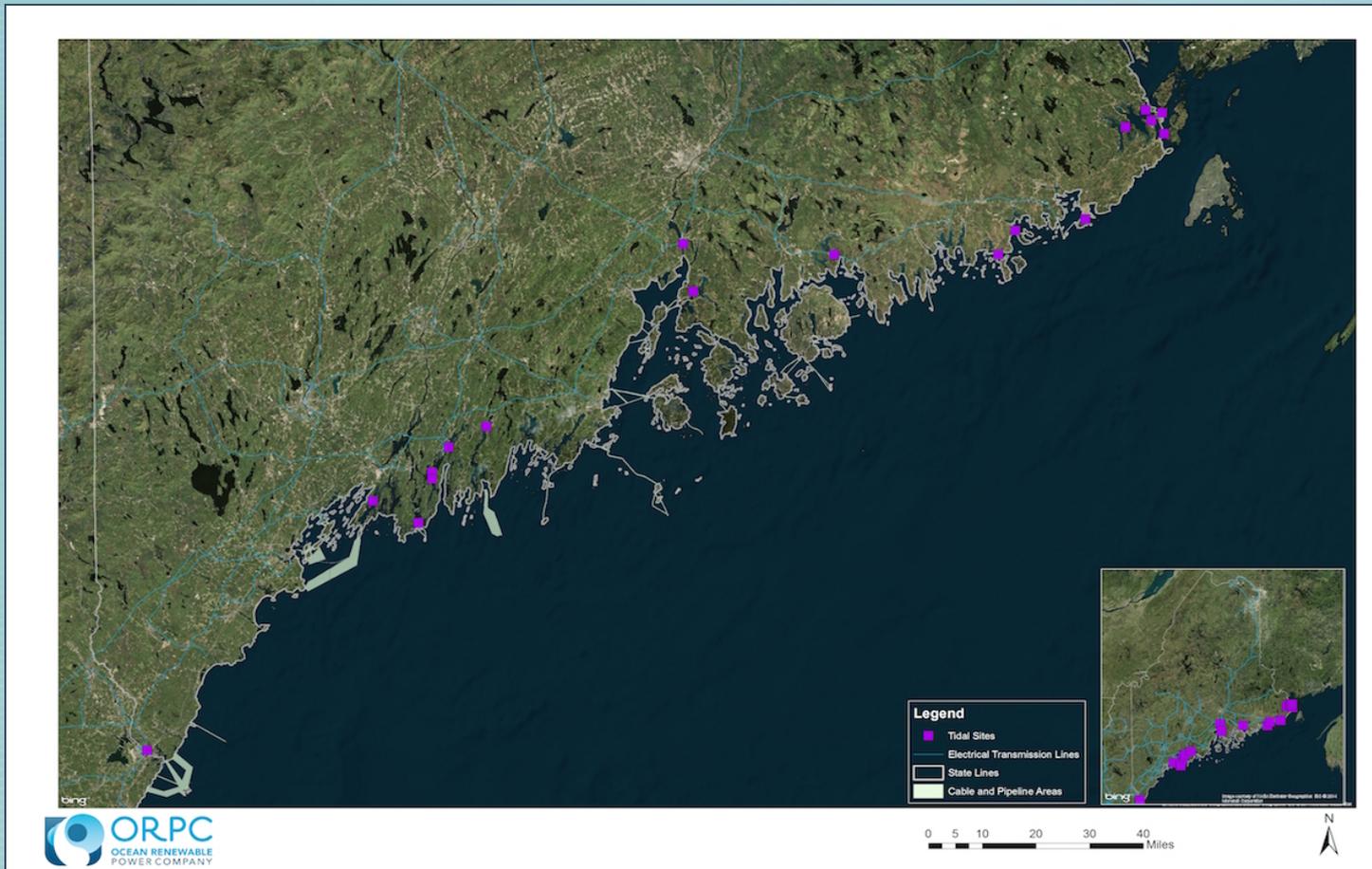
Wave Energy Technologies



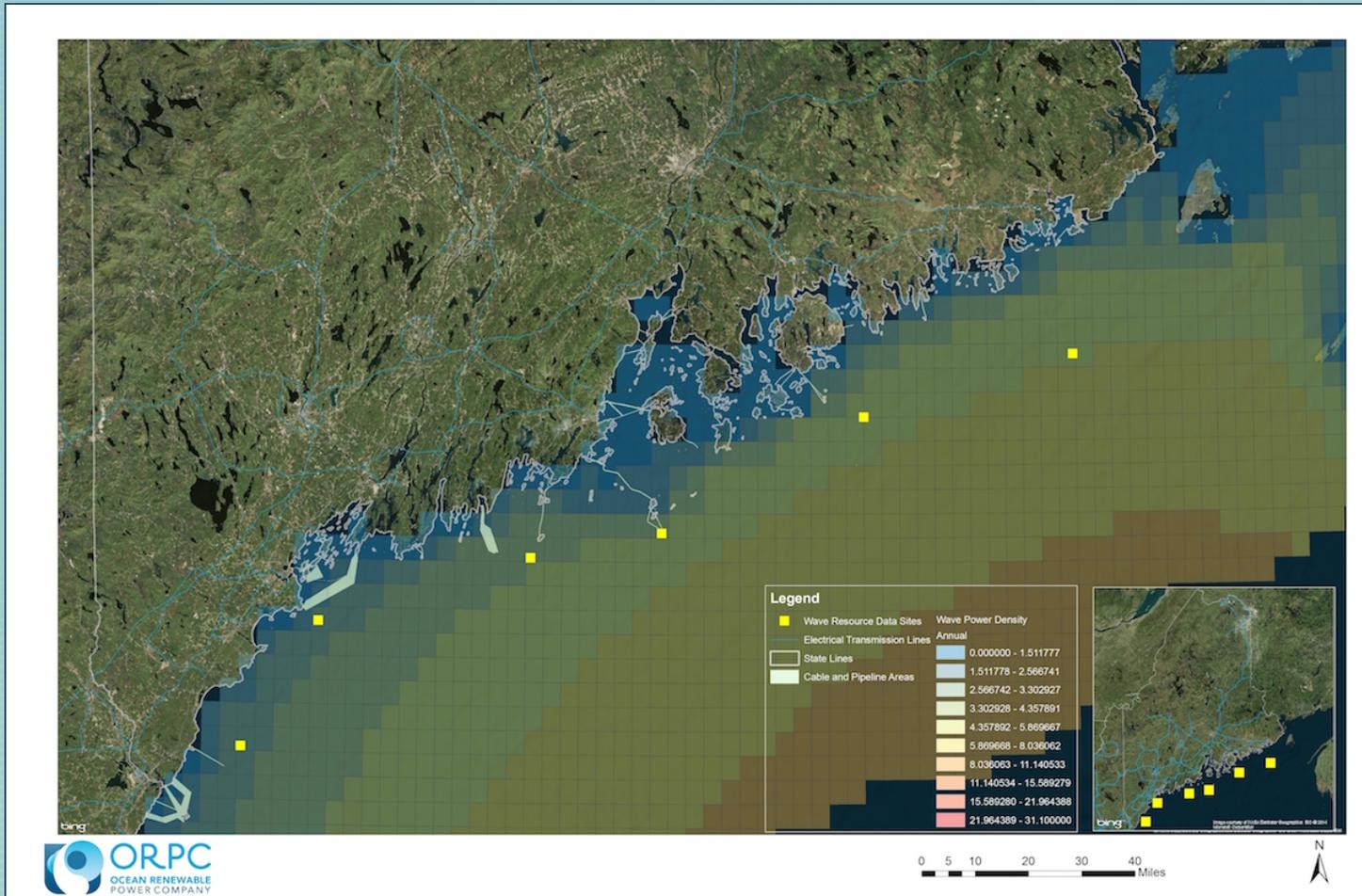
River Hydrokinetic Technologies



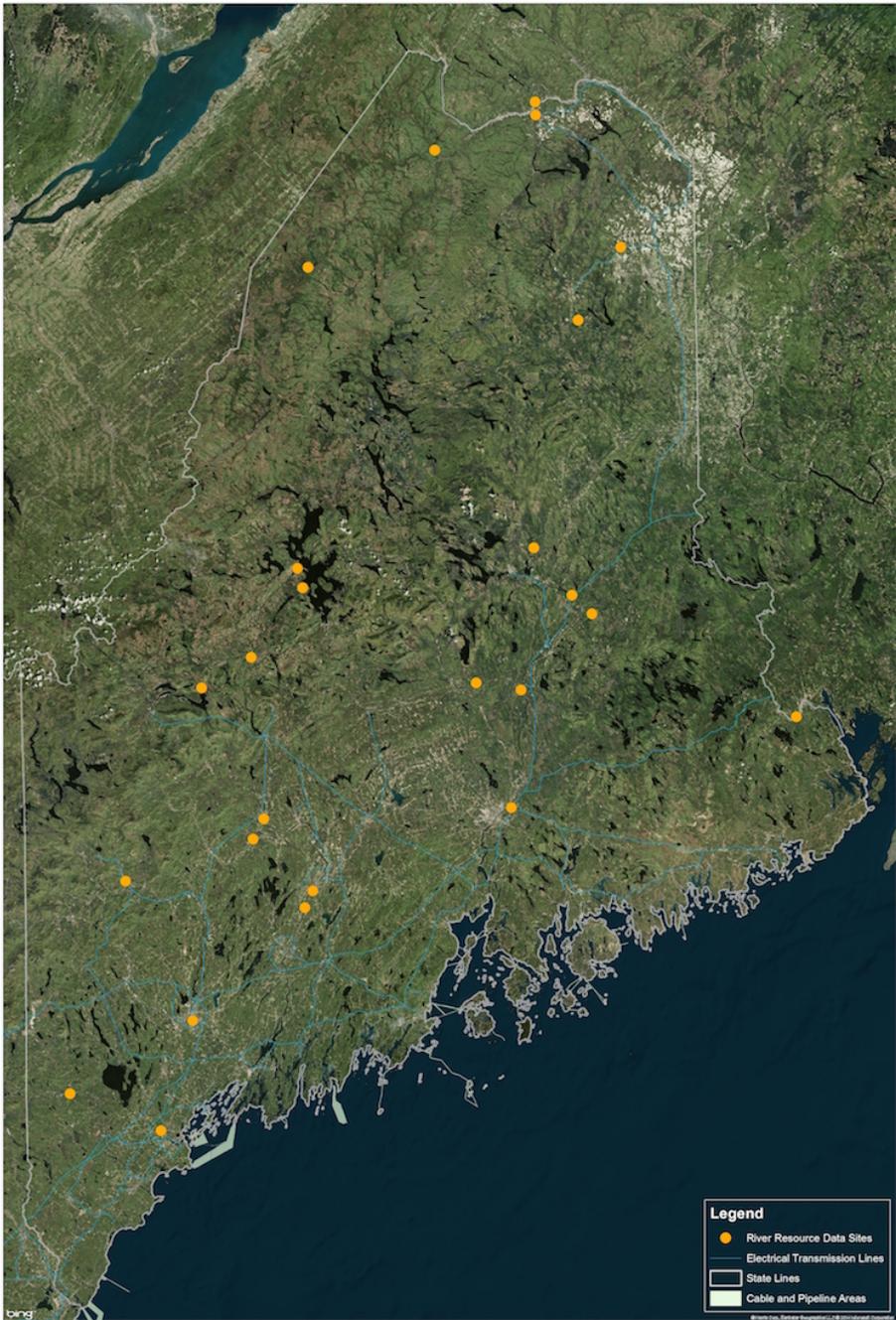
Tidal Energy Inventory



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

Potential Regulatory Barriers

- Federal Barriers
- State Barriers

Hydro Reform in Other States

- Colorado
- Vermont
- Alaska
- Oregon
- California

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