Annex XVI – Hidden and Untapped Hydropower Opportunities

Oak Ridge National Laboratory

Carly Hansen

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Task 3 – Opportunities at Non-Powered Infrastructure

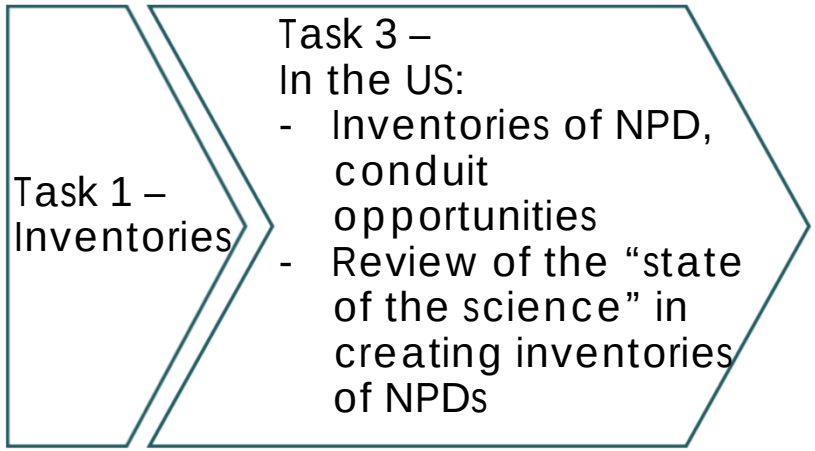
When	What	Who
12:40 – 13:20	**Task 3 - Portfolio of cases study on adding Power to "Non-power Dams" and Water Management Facilities, Multi-usage of water**.	Chair: C. Hansen
12:40 – 12:45	Task presentation	C. Hansen
12:45 - 12:50	Recent agricultural conduit projects in the USA	L. George
12:50 – 13:00	Multipurpose projects : Overview and return on experience	V. Denis
13:00 – 13:10	Opportunities in drinking water networks in Switzerland	I. Samora
13:10 – 13:20	Discussion - Wrap up	C. Hansen

Summary of Task 3 Scope

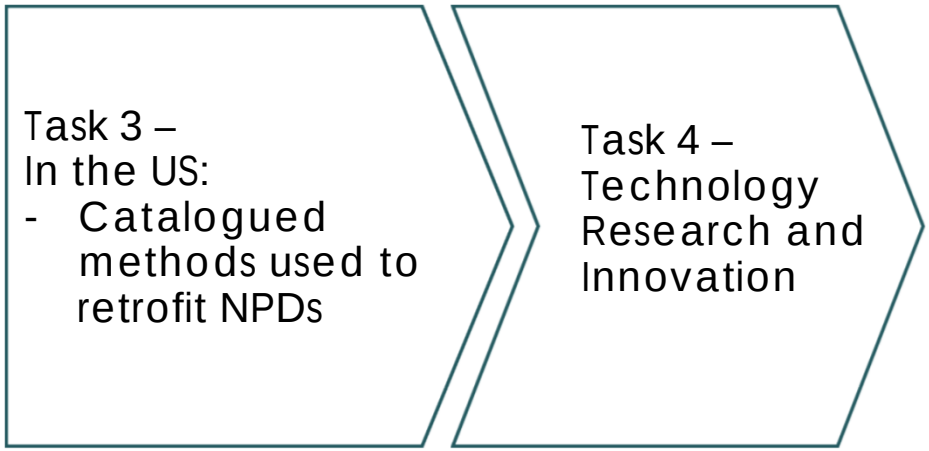
- Identify and evaluate the opportunities of existing non-powered infrastructure
  - existing dams built for water supply, irrigation, flood control etc., which have potential to add hydropower to their discharge
  - navigation locks
  - water conduits (within water supply, industrial, or sanitation systems; irrigation canals and drop structures)
  - pumped hydro opportunities (e.g., using reservoirs no longer used for tailings/mining)

Objective of Task 3

Identify patterns, commonalities, and barriers to adding hydropower at existing non-powered infrastructure (NPI).

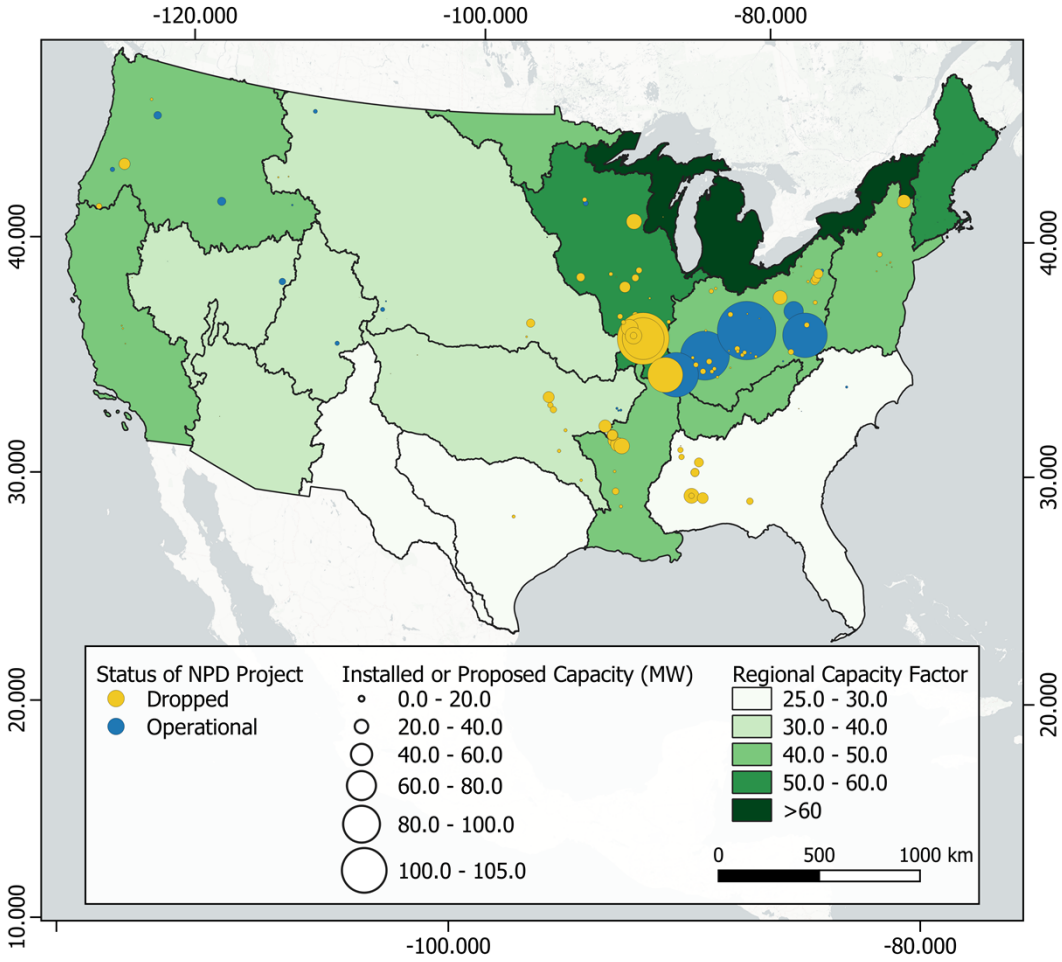


Inventories enable better understanding of total and range of opportunities



Review of NPI projects help identify limits and needs for further innovation

Summary of US for projects at Non-powered Dams



- 36 projects at NPDs between 2000-2020
  - 514 MW capacity
  - 37.4-105 MW
- Most developed at federally owned dams
- Most projects exploited existing intake/outlet structures rather than going over or bypassing existing dam
- Average time of the projects (from application to completion) = 2.3 years
- 112 projects were dropped
  - Reasons varied:
    - Most common: Low economic feasibility
    - General lack of policy support
    - Few: Environmental or safety concerns

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