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(12) **United States Patent**
(27) **Miller**

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(54) **SYSTEM AND METHOD FOR CONTROLLING WATER FLOW BETWEEN MULTIPLE RESERVOIRS OF A RENEWABLE WATER AND ENERGY SYSTEM**

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(75) Inventor: **Allen David Miller**, Palmer Lake, CO (US)

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(73) Assignee: **Natural Energy Resources Company**, Palmer Lake, CO (US)

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 295 days.

(Continued)

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(21) Appl. No.: **12/102,651**

"Blenheim-Gilboa Pumped Storage Power Project," available at <http://www.nypa.gov/facilities/blengil.htm>, printed Jul. 13, 2010, copyright 1996-2010, 2 pages.

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(65) **Prior Publication Data**

Primary Examiner—Tara Mayo-Pinnock
(74) *Attorney, Agent, or Firm*—Sheridan Ross P.C.

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Related U.S. Application Data

(57) **ABSTRACT**

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E02B 9/02 (2006.01)
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(52) **U.S. Cl.** **405/80; 405/51; 405/53; 405/75**

(58) **Field of Classification Search** **405/36, 405/51-53, 55, 75, 80; 210/747, 170.01**
See application file for complete search history.

A high altitude pumped-storage system for selectively integrating, storing, and distributing water and energy to increase the regional productivity of existing and future water and energy resources throughout multiple river basins is disclosed. This system addresses in part the increased requirement of supplying energy demands from a renewable energy source, such as wind, solar, or water generated power. The system includes at least one primary reservoir connected to multiple secondary reservoirs by conduits. The system allows for selectively distributing water and energy between secondary reservoirs and at least one primary reservoir. The system may comprise one or more hydroelectric power generation facilities. A method for increasing the regional efficiency of existing and future systems for producing, storing, and delivering energy from sources such as hydroelectric, wind and solar power from the water collected by the system described herein is also disclosed.

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16 Claims, 4 Drawing Sheets

