EESI: “A New Look at Opportunities for America’s First Renewable Energy Resource”

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Chairman and CEO

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The Enlightenment of Small Hydro

- **First Renaissance**
  - 1848 – James Francis invents Francis reaction turbine
  - 1870 – Lester Allen Pelton invents impulse Pelton wheel
  - 1882 – Schoellkopf Power Station No. 1, Niagara Falls, NY

- **Second Renaissance**
  - 1900-1960's – Bulk of global development

- **Third Renaissance**
  - 1978-1986 – FERC PURPA and Qualifying Facilities (QF)

- **Fourth Renaissance**
  - 2009 – Present – RPS, Feed-in-Tariff, HREA, AWIA

- **Fifth Renaissance?**
  - Novel upstream and downstream fish passage
  - Fish-friendly turbine technologies
  - New environmentally-sensitive designs at dams and rivers
  - Corporate interest in renewable and clean projects

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**Experimental Hydro**

**Major Hydro:**
30-1500 MW
Grand Coulee

**Mid-size Hydro:**
5-30 MW

**Small Hydro:**
5 MW (<1MW)
In-Conduit Hydro

Source: NLine
New, Modular Technologies

Source: AmJet, Obermeyer, NEHC, Natel
Corporate Appetite for Renewables

Corporate Renewable Deals
2014 – 2018

Source: BRC
Thank You!

Source: FCA
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