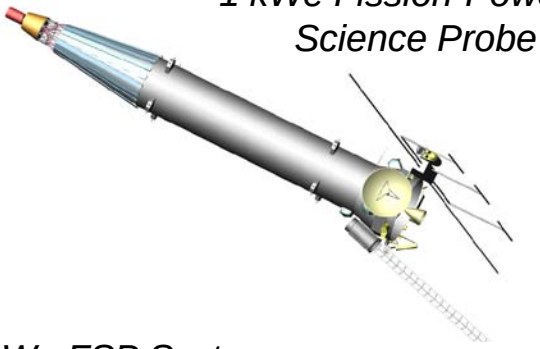
The Path Forward for Fission Power Systems

- Panel Members:
  - Joe Nainiger: Alphaport Inc., NASA Glenn (Retired)
    - » **How To Establish A Mission Pull**
  - Sam Bhattacharyya: Renmar Enterprises Inc., Savannah River National Lab (Retired), Argonne National Lab (Retired)
    - » **What Are The Critical Building Blocks**
  - Sterling Bailey: Bailey Engineering and Management Inc., General Electric Astrospace (Retired)
    - » **Government And Industry Working Together**
  - Abraham Weitzberg: Consultant, Previously Employed by Atomics International, General Electric, SAIC, NUS, Scientech
    - » **What Can We Learn From Our History**
  - Moderated by Lee Mason, NASA Glenn

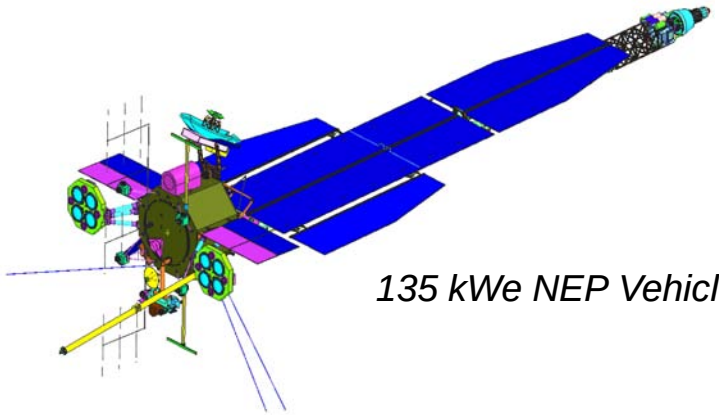
Projected Applications for Fission Power Systems

1. **Outer Planet Space Science**
   - 1 to 10 kWe
   - 10 yr Life or Greater
   - Unmanned, Autonomous
   - Low Mass; Competitive with RTGs
   - Non-Obtrusive; Shouldn't interfere with Science Objectives
2. **Fission Surface Power (FSP)**
   - 10 to 100 kWe
   - 5 to 10 yr Life
   - Human-rated
   - Robust and Reliable; Mass is Secondary
   - Adaptable to Multiple Missions and Environments
3. **Nuclear Electric Propulsion (NEP)**
   - 100 kWe to Several MWe's
   - 5 to 15 yr Life
   - Cargo or Piloted Missions to Mars
   - Low Specific Mass (kg/kW); Must provide benefits over SEP
   - Flexible Operations: Thrust, Coast, Science, Standby

1 kWe Fission-Powered Science Probe



40 kWe FSP System



135 kWe NEP Vehicle