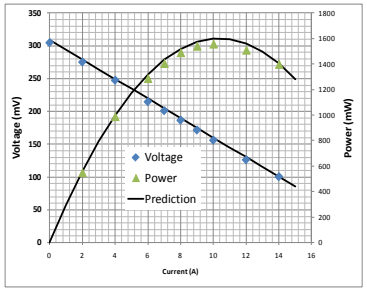
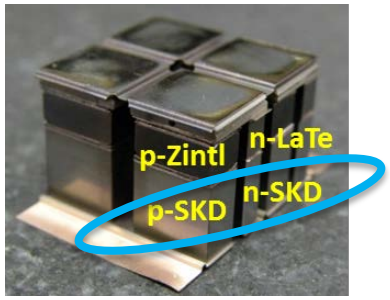
Roadmap for Infusion of New Thermoelectric Technology:
More Capable RPS for Future Missions

Higher end of design life (EODL) power, higher specific power and modular system architecture

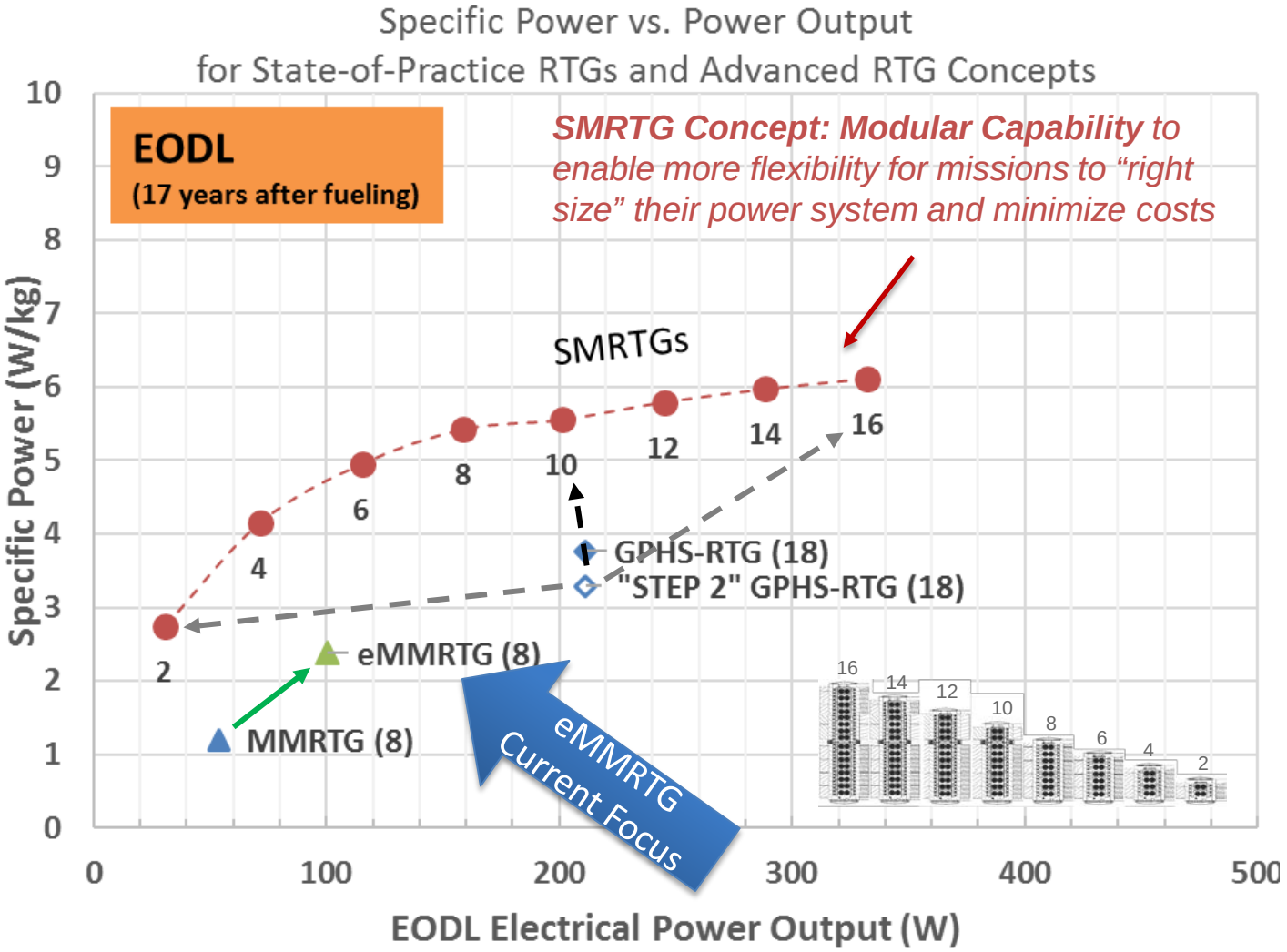
~ 2x Conversion Efficiency over Heritage Thermoelectrics



+ =



Segmented & Modular TE Device Technology development



What is NASA RPS Program's Thermoelectric Technology Development Project?

- Sustains critical and unique capabilities in support of TE-based Radioisotope Power Systems (RTGs)
- Fosters opportunities for development of significantly more capable nuclear power systems
  - Leverage proven heritage technologies & system platforms
    - GPHS-RTG (discontinued)
    - MMRTG (in production)
  - Make use of thermoelectrics' inherent modularity and scalability
  - Apply results from latest industry-led RTG system engineering studies (NASA-funded, DOE support)
  - Advance & mature higher performance TE technologies to enable future flight system developments

- 2 RPS Program posters:
  - **Enhanced MMRTG** – Dave Woerner, JPL
  - **Segmented Modular RTG** – Jean-Pierre Fleurial, Fivos Drymiotis, Dave Woerner, JPL