2026: HES 1-year Roadmap Public Facing

Jan 2026 - Dec 2026

Major Goal	Epics	Start Date	Due Date
1. HES management	1.1. Human Earth Systems Feedback management	Jan 2026	Dec 2026
2 E3SM-GCAM simulations	2.1. Complete coupled E3SM-GCAM simulations for use in energy-related manuscripts	Jan 2026	Jun 2026
3. Energy resilience under extremes	3.1. Development of energy-relevant metrics and diagnostics	Mar 2026	Dec 2026
	3.2. Complete implementation of energy demand links (Heating Degree Days, Cooling Degree Days) from EAM to GCAM	Jan 2026	Jun 2026
	3.3. Complete implementation of GCAM-USA coupling	Jan 2026	Jun 2026
	3.4. Initial water-for-energy scoping experiments and paper	Jan 2026	Dec 2026
	3.5. Energy impacts deep dive and reading group	Apr 2026	July 2026
	3.6. [Manuscripts]: Focused on energy - Earth system coupling (1-way vs 2-way feedbacks)	Nov 2026	Ongoing
	3.7. Design energy resilience to extremes experiment (for Phase 4 experiments)	Nov 2026	Ongoing
4. Increasing wildfires and impacts on energy and society	4.1. Testing wildfire model needs, features, test simulations, debug, PR	May 2026	Jun 2026
	4.2. Testing wildfire using a coupled demographic, disturbance model (FATES)	May 2026	Jul 2026
	4.3. Train a DNN-Fire v2 version	Jun 2026	Aug 2026
	4.4. Evaluate the DNN-Fire v2 model within ELM and evaluate impacts	July 2026	Oct 2026

	4.5. New coupled wildfire simulations for energy infrastructure risks and regional air quality risks	Aug 2026	Dec 2026
	4.6. Assess black carbon and sea ice / snow feedbacks on fire effects	Aug 2026	Dec 2026
	4.7. [Manuscript] Western and Southeast US fire emissions and impacts on clouds/aerosols/air quality.	Jan 2026	Jun 2026
	4.8. [Manuscript] Wildfire risks for US energy infrastructure	Oct 2026	Ongoing
5 Complete work from previous FY	5.1. [Manuscript] v3 Land documentation paper and benchmarking (under review)	Jan 2026	Jun 2026
	5.2. Complete simulations of GCAM-driven E3SM: spinup and tuning of coupled v3land+v3atm model + v3ocean + v3seaice+ v3GCAM	Jan 2026	Jun 2026