

# Welcome!

# **MARVEL Technology Review**

Lori Braase, INL Industry Engagement

October 19, 2022











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(NTD-MRP) John Jackson – John.Jackson@inl.gov

(MARVEL) Yasir Arafat – Yasir.Arafat@inl.gov

Microreactor Program Website (MARVEL Section) – <a href="https://gain.inl.gov/SitePages/MicroreactorProgram.aspx">https://gain.inl.gov/SitePages/MicroreactorProgram.aspx</a>





### Technology Review Agenda: October 19, 2022

MT	Topic	Presenter
9:00 am	Welcome / Logistics	Lori Braase
9:05 am	Microreactor Program Overview	Janelle Eddins, DOE-NE John Jackson, Microreactor NTD
	MARVEL Overview & Status	
9:20 am	Reactor Design Overview	Yasir Arafat, Project Lead
	Fission & Safety	
10:00 am	Neutronics	Travis Lange
10:30 am	Fuel Performance Evaluation	Jordan Evans
11:00 am	Thermal Hydraulics & Safety Basis	Carlo Parisi
	Reactivity Controls	
11:30 pm	Control Drum and Shutdown Rod	Anthony Crawford
	Construction & Assembly	
12:15 pm	Final Assembly and Construction	Yasir Arafat
12:45 pm	Open Forum / Q&A	Lori Braase



## MARVEL Utilization Agenda: October 20, 2022

MT	Topic	Presenter
9:00 am	Logistics	Lori Braase
9:05 am	MARVEL Utilization Overview	John Jackson
	MARVEL Reactor Technology	
9:15 am	Readiness & Startup Testing	Yasir Arafat
9:45 am	MARVEL Control Simulator	Ben Baker
10:15 am	Advanced Sensor & Controls Deployment	Troy Unruh
	MARVEL Applications	
10:45 am	Integrated Energy Systems Including Nuclear	Shannon Bragg-Sitton
11:15 am	Microgrids and MARVEL	Kurt Myers
11:35 am	Hydrogen Production: Heat & Power	Micah Casteel
11:55 am	INL Net Zero Pilot	Sam Dixon
	Accessing MARVEL: Funding & Schedule	
12:30 pm	GAIN Nuclear Energy Voucher Program	Chris Lohse
12:45 pm	Cleantech Integrated Energy Systems Network (CIESN) Incubator	Richard Adams Corey McDaniel
1:00 pm	Initial User Engagement	John Jackson
1:15 pm	Industry Needs/Feedback to Inform MARVEL Testing Requirements and Schedule	John Jackson Lori Braase
1:45 pm	Summary and Call to Action	John Jackson Yasir Arafat