

PANEL 1 - Residential Buildings: Technologies, Design, Performance Analysis, Construction, and Building Industry Trends

PANEL LEADERS: **Dave Roberts**, *National Renewable Energy Laboratory* and **Meli Stylianou**, *Natural Resources Canada*

SESSION TOPICS: Building science and engineering focusing on high performance solutions for new and existing homes, including: integrated design; envelope load reduction; energy-efficient and demand-responsive equipment, space conditioning for low-load homes; systems and whole-house integration including smart controls and distributed energy resources; net zero energy; indoor air quality, design software and interoperability; performance analysis/modeling; performance monitoring; benchmarking/rating/ labeling; fault detection and diagnostics; commissioning; pre-fab and modular construction trends and techniques.