

# ENERGYEXECS

NREL Executive Energy Leadership Program

## SAMPLE SYLLABUS

<b>Session 1 (3 days)</b>	Introduction to NREL, National Energy Challenges, and Campus Tour
<b>Session 2 (3 days)</b>	Energy Systems Integration, Sustainable Building Design, and Analysis
<b>Session 3 (3 days)</b>	Economic Development and Communities of the 21 <sup>st</sup> Century, Energy-Efficient Transportation and Biofuels
<b>Session 4 (3 days)</b>	Class Projects and Graduation

### Session 1

#### **Introduction to NREL: America's Energy Challenges and Opportunities**

- Introductions and networking
- America's energy challenges and opportunities
- Advancements in solar and wind technologies and utility-scale renewable electricity applications
- NREL National Wind Technology Center tour
- Hosted evening reception

### Session 2

#### **Energy Systems Integration and Sustainable Building Design and Analysis**

- Opportunities and barriers for utility-scale renewable energy generation, regional grid integration, and associated manufacturing opportunities
- Integration, the smart grid, and using NREL's sustainable campus building design as a living laboratory
- Analytical, economic, and resource tools to for making informed energy decisions supporting planning and financial decisions
- NREL Energy Systems Integration Facility tour
- Field trip

### Session 3

#### **Economic and Community Development**

- The economic impacts of energy efficiency and renewable energy power: Models for reducing our power footprint
- Building design and construction, performance characteristics, analytical tools, and costs
- NREL Research Support Facility tour
- Field trip

#### **Energy-Efficient Transportation and Fuels**

- Transportation and fuels: Addressing the technological inefficiencies in our transportation system and the critical implications for our national security
- NREL Biofuels and Vehicle Testing Facilities tours

### Session 4

#### **Class Projects and Graduation**

- Project presentations
- Graduation
- Alumni networking event