

## **Introducing NIREC:** **Nevada Institute for Renewable Energy Commercialization**

The Nevada Institute for Renewable Energy Commercialization (NIREC) (pronounced “nigh rek”) transforms scientific research into viable businesses in order to accelerate the widespread adoption of renewable energy solutions.

NIREC integrates researchers, experienced entrepreneurs, business executives, corporations, foundations and sources of capital to identify, mature and fund viable, cost-effective, renewable energy solutions.

### **Vision**

The regional and national priority for renewable energy adoption is well established. Significant barriers exist, however, in the commercialization of clean energy, including:

- Ambiguous research directions
- Technology trapped in labs
- Lack of commercialization know-how and funding
- Short-term ROI constraints
- Difficulty in attracting experienced entrepreneurial management teams
- Long maturation and characterization periods
- Incumbent technologies and fiscal regimes

NIREC accelerates the maturation and widespread deployment of renewable energy solutions, and ultimately creates jobs. Through the Entrepreneur-in-Residence Program, NIREC joins promising renewable energy research with the talent, resources, market-savvy orientation and financing capabilities of the private sector to create viable businesses.

NIREC's distinguishing features:

- Specific and exclusive focus on commercialization as opposed to basic or fundamental research
- Comprehensive market-based approach to technology selection, characterization, maturation and funding
- End-to-end solutions methodology that leverages (without duplicating) existing activities and aligns both public and private sector expertise to provide affordable and effective results

## Organization

NIREC’s ability to deliver its mission stems from the strength of its stakeholder community:

- An independent Board of Trustees.
- A Technology Commercialization Advisory Board (TCAB) that is responsible for selecting deserving projects for funding and mentorship.
- A team of highly esteemed Entrepreneurs-in-Residence (EIRs).
- Partnerships with research partners, major companies and sources of capital for end-to-end commercialization

## The Project Process

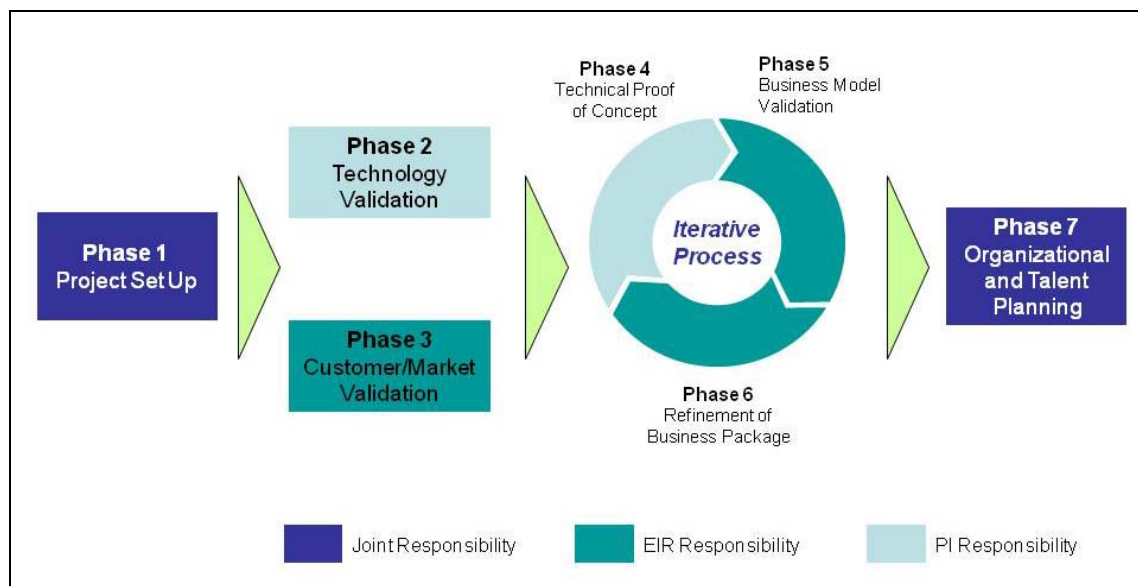
### Proposal Submission

NIREC invites the submission of proposals for project work applicable to the renewable energy field. All applications are subject to the peer review process conducted by NIREC’s Technology & Commercialization Advisory Board (TCAB).

### EIR Process

The EIR Process outlines a framework through which each project progresses, and is a repeatable methodology that ensures each project achieves one of three potential desired outcomes:

- The formation of a business seeking funding from venture capitalists or angel investors
- The licensing of technology
- The publication of work in the event the technology is not feasible or commercially viable



#### Phase 1: Project Set-up

EIRs and Principal Investigators (PIs) agree on deliverables, budget, and timeline.

#### Phase 2: Technology Validation

PIs oversee research activities to confirm that the underlying technology "works," and delivers the desired outcome

#### Phase 3: Customer and Market Validation

EIRs guide research to confirm and articulate the consumer pain point, approach to solution, benefit to the consumer and competition.

#### Phase 4: Technical Proof of Concept

PIs guide research activities to confirm that the underlying technology is able to perform in the desired application, as a product.

#### Phase 5: Business Model Validation

EIRs lead market research and financial modeling activities to develop business model (to include business model, marketing plan, IP strategy and funding strategy).

#### Phase 6: Refinement of Business Package

EIRs lead the integration of all aspects of validation activities so far, into first draft of the Business Package.

#### Phase 7: Organizational and Talent Planning

EIRs and PIs work together to determine next organizational steps and talent plan.

### **Research Partners**

- Desert Research Institute ([www.dri.edu](http://www.dri.edu))
- University of Nevada, Las Vegas ([www.unlv.edu](http://www.unlv.edu))
- University of Nevada, Reno ([www.unr.edu](http://www.unr.edu))
- University of California, Davis ([www.ucdavis.edu](http://www.ucdavis.edu))

### **Sponsors**

- U.S. Department of Energy ([www.energy.gov](http://www.energy.gov))
- Nevada Department of Business and Industry ([business.nv.gov](http://business.nv.gov))

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