



***inv*VEST**
**Education
Initiatives**

**“Imagine a Handoff,
Clean Sustainable Energy**

Fueling our next generation’s economy, curing our environment...”

invVEST is a nonprofit technology agnostic organization

invVEST VISION:

Enabling Massive Scale

**Sustainable Energy Initiatives (SEI) will
generate the next vibrant economy while protecting
our planet for future generations to enjoy.
Together, We can.**

* **invVEST** stands for: **invest** in **E**nergy that's **S**ustainable through
Virtual collaborative **T**eams

Our Sole Purpose:

**“Enabling Global Leadership for USA through
Massive Scaling of Sustainable Energy Initiatives.”**

.... For the sake of our very next generation

Why The Urgency to Transition to Sustainable Energy?

THE
FACT OF
LIFE:

Energy is the life blood for developed & emerging economies
that fuels our well-being & economies
Our Dependency on Fossil Fuels to Generate Energy is Causing

THE
ISSUES:

❑ Global Climate Change:

still being debated despite mounting evidence that reaching 450 CO2 PPM (increased from 280ppm in pre industrial age: 1850 to 390ppm in 2009) will cause irreversible climate change leading to unprecedented disasters and economic crisis.

❑ Fossil Fuel Depletion

(see Energy Transition powerpoint)

Cannot be debated

<20 years for Oil to Peak: majority of Experts
80 years by most Optimistic Proponents

THE
THREAT:

Status Quo dependency on Fossil Fuel leads to
Unprecedented Global Crisis: Economic Devastation & Wars
Some contend, it will lead to dramatic decline of Human Life.
USA Surrenders Overall Global Leadership in the next few decades

THE
OPPORTUNITY:

USA takes on Global Leadership in Transitioning
to Sustainable Energy. This leads to:

- Major share of the Multi-Trillion \$ Emerging Markets
- Enables Sustainable Jobs, Growth & Leadership for USA
- Shows the way for the rest of the world
- **Energy Awareness & Education Programs: how each of us can make a difference**

The **invVEST** team has identified three SEI Initiatives for massive scaling:

1. **Balanced SEI Portfolio or Break-Through Solar Energy Initiative (or any other SEI)**

Stretch Goal >60% from SEI by 2030 for >95% Confidence level to avoid Energy and/or Climate Crisis

Target >60% from SEI by 2050 for >80% Confidence level to avoid Energy and/or Climate Crisis?

2. **Energy Efficiency and Conservation Initiative:**

USA consumes 54% more energy than OECD Europe.

Reduce energy consumption per capita incrementally by 1% a year for a total 12% reduction by 2020.

Bottleneck: Low Energy Awareness drives behavior & lack of engagement

3. **Enable massive support & involvement from the education and citizen communities.**

Awareness → Behavior → Knowledge → Education → Increased Awareness → Action

“Mindset Game Changers”

K-12 : Focus on Grassroots movement & Community Involvement through SEI awareness

Universities: Focus on Grassroots movement & Building enhanced skills for SEI.

Other well defined ideas that hold the promise of meeting SEI definition will be introduced over time.

THE EDUCATION COMMUNITY INVOLVEMENT: Plan of Action.

1. Energy Awareness, knowledge leading to behavior changes & SEI Critical Skills.

Joint initiatives between Schools & Universities & invVEST

Pilots, leading to JOINT programs

- Embedding SEI into K-12 curriculum & practices, informal leading to formal
- Sharing best practices in schools & community colleges
- Collaborating with communities through schools
- Collaborating with other Universities & Colleges
- Participating with County, State & Federal programs
- Interacting with NREL, DOE to scale & integrate application developments in SEI

2. Joint education programs WITH ambassadors of invVEST Workforce Training

As part of core or elective curriculum

Special Exec Certification Programs, 1 week overview

One day overview programs & workshops

Specialized Areas

Technology integration, business operation & ramping up.

Business Planning & Financing options

Ethics, Citizenship, Behavior and Awareness Initiatives through knowledge & education

3. Other Ideas that will lead to massive scaling & mutual opportunities.

Please visit www.invVEST.org for details and links to many other resources on SEI.

Current Education Initiatives

COLORADO

➤ High School Pilots:

- Fairview High School
- Monarch High School
 - Others interested

➤ College Pilots Workforce Education

- University of Denver
- CSU
 - CSM
 - CU, Boulder
 - Red Rocks Community College

OUTSIDE Colorado

➤ High School Interested

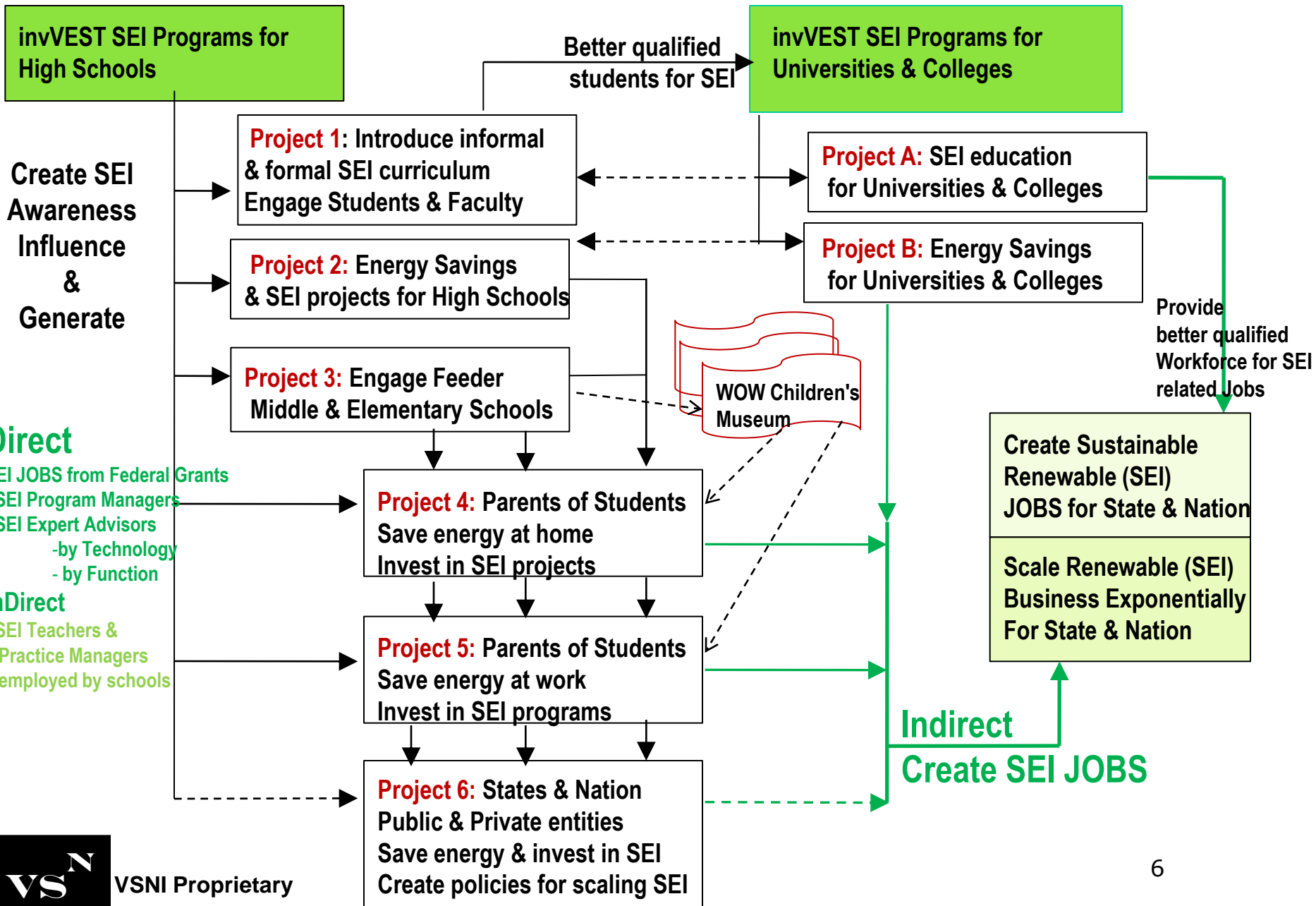
- Thomas Jefferson High School, DC
- High School in West Coast
- American Embassy School, India

➤ Colleges interested:

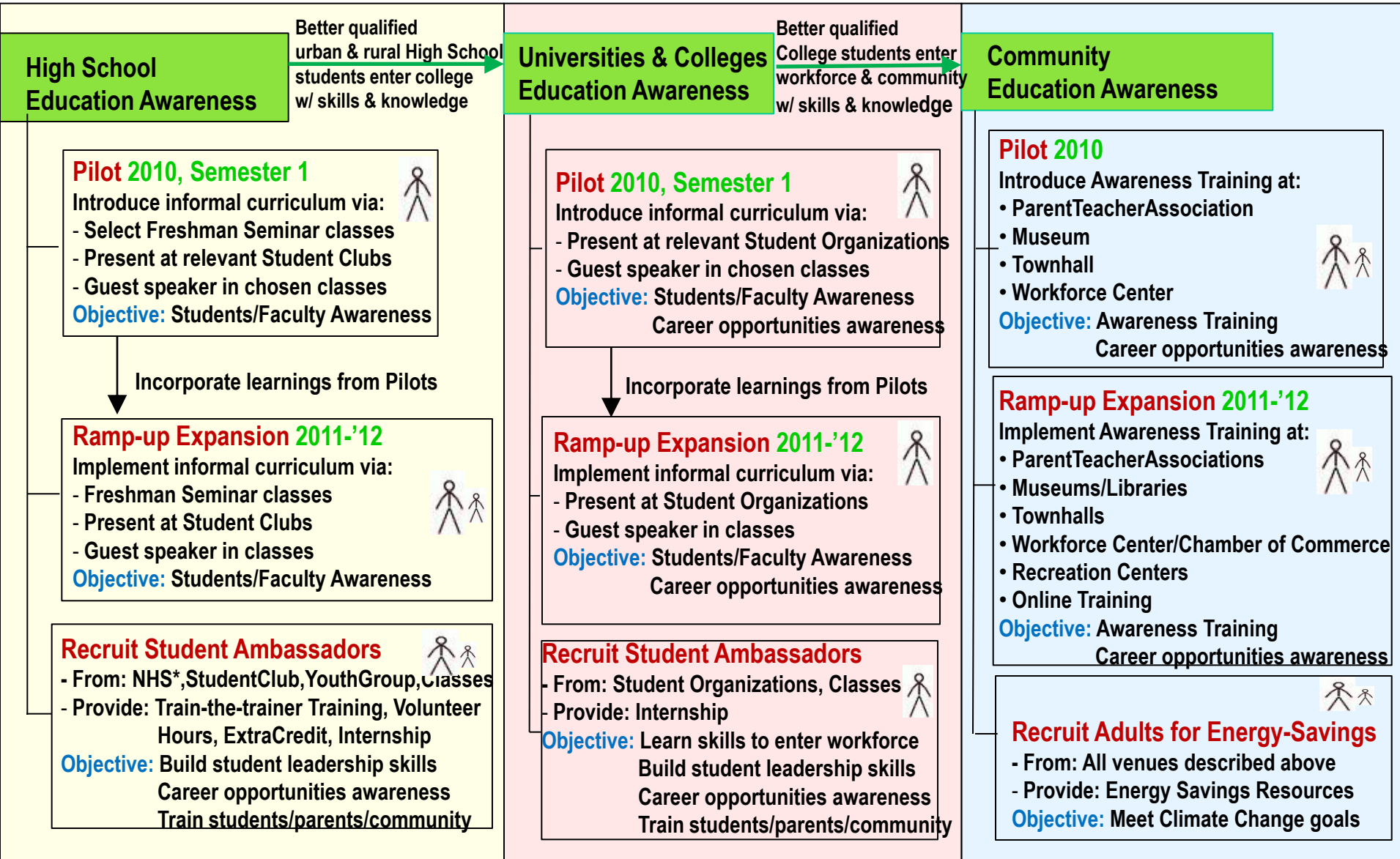
- Johns Hopkins
- Virginia Tech
- Univ. Of San Francisco
- Oxford, UK
- PES, Bangalore, India

invVEST SEI * Education Initiatives: Projects & Job Opportunities Through Virtual Collaborative Teams

*SEI: Sustainable Energy Initiatives



invVEST Education Awareness Training



*NHS: National Honors Society



VSNI Proprietary



invVEST Education Ambassador



invVEST Education Ambassador
With Student Ambassador

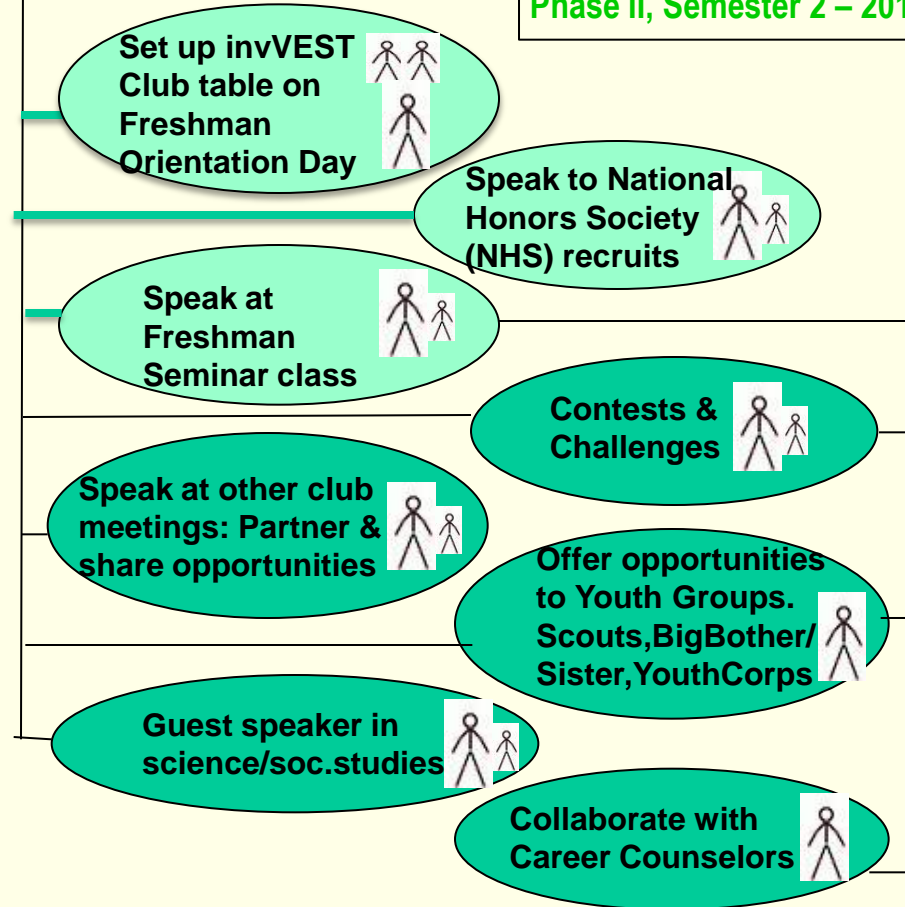
Strategy/Process to Recruit Student Ambassadors

Recruiting at High Schools

- Incentives:**
- Volunteer Hours
 - Extra Credit
 - Leadership Training/Experience
 - Awards/Prizes

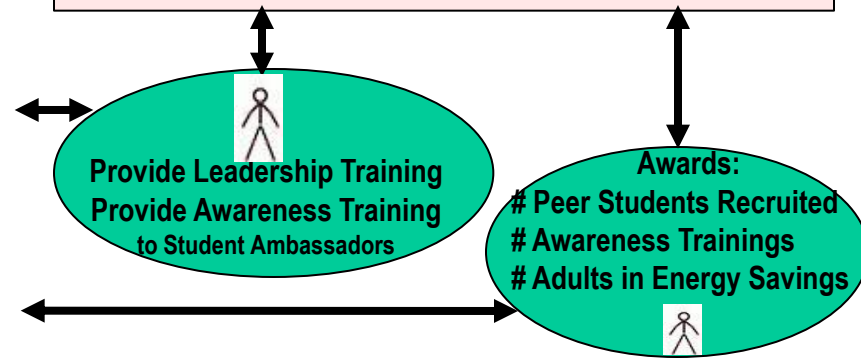
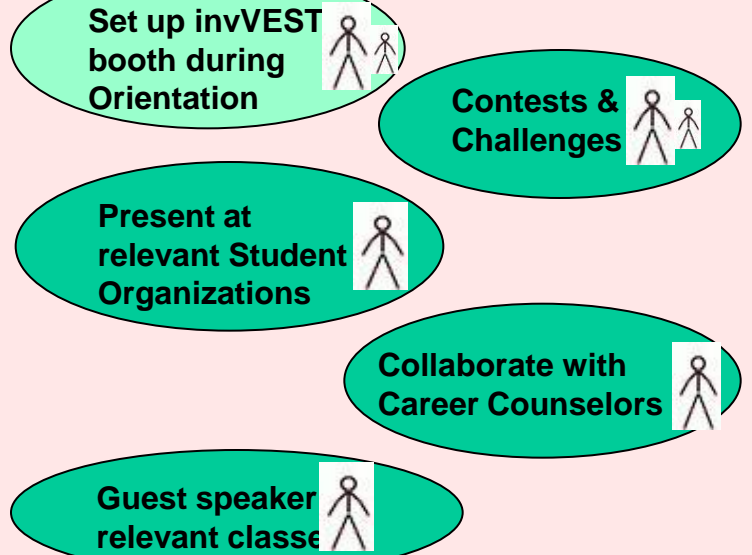
Phase I, Semester 1– 2010 (Pilot)
Phase II, Semester 1– 2011
Phase III, Semester 1– 2012

Phase I, Semester 2 – 2011
Phase II, Semester 2 – 2012



Recruiting at Universities & Colleges

- Incentives:**
- Internships
 - Leadership Training
 - Awards/Prizes



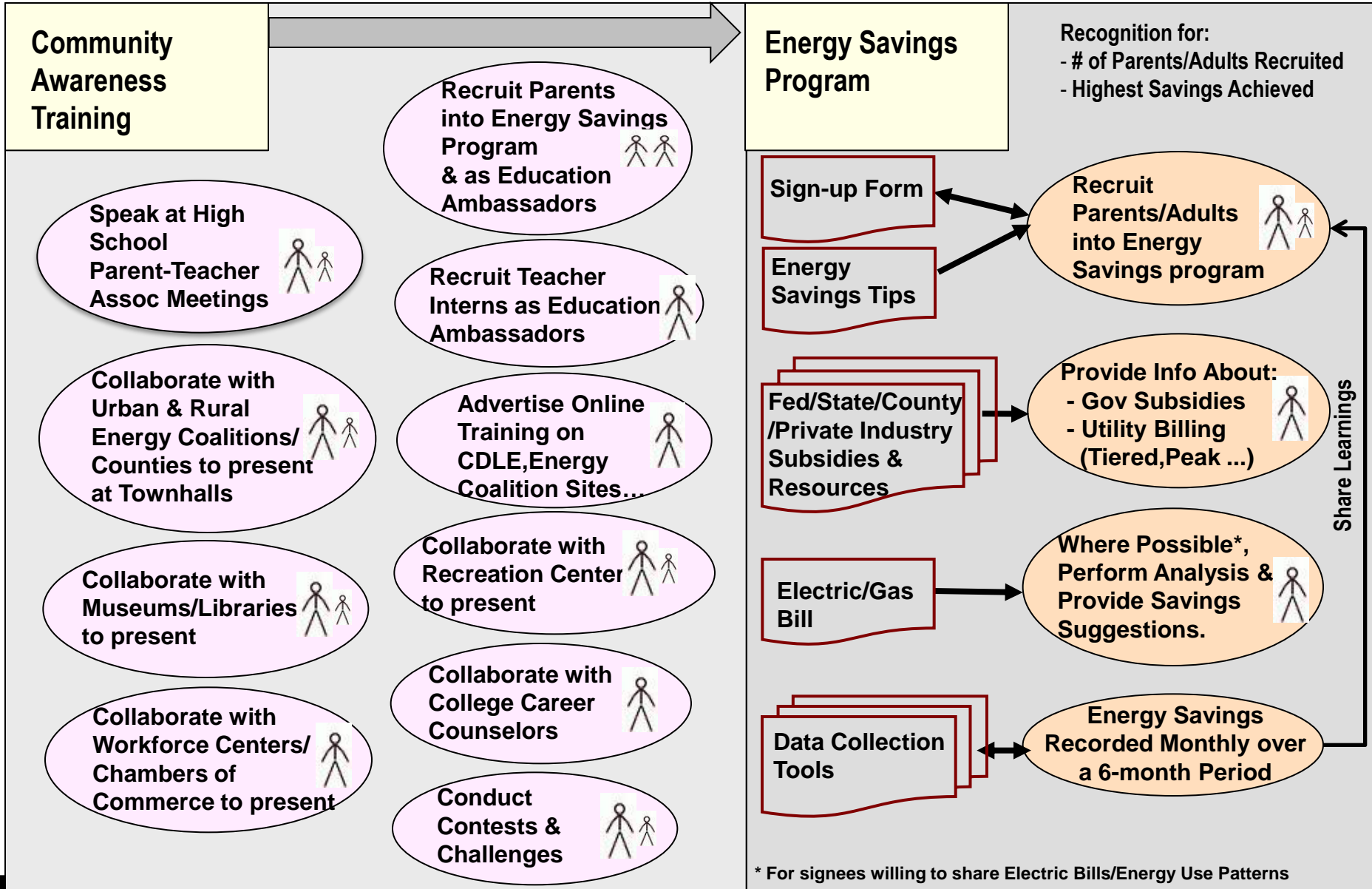
Current invVEST Student Ambassadors

invVEST Education Ambassador

invVEST Education Ambassador With Student Ambassador

Only in initial semester of school year
 Year-round

Strategy/Process for Community Briefings and Energy Savings



TYPICAL AGENDA & PROGRAM ELEMENTS OF AWARENESS TRAINING

Student Awareness Trainings (45 minutes):

5 mins: Opening video (Global warming and fossil fuel impact)

10 mins: **WHY** IS IT IMPORTANT TO GET INVOLVED

- Depletion of current Energy Sources
- National Security Issues
- Environmental Impacts
- Stagnating Economy
- Global Leadership at Risk

10 mins: **WHAT** SHOULD WE DO TO CHANGE BEHAVIORS

- Alternative Sources of energy
- Energy Efficiency & Conservation related behaviors
- Energy Savings / Audits
- “Green” career options

10 mins: **HOW** TO MAKE A DIFFERENCE

- Conducting Parent/Community Awareness Trainings
- Recruiting other students as Student Ambassadors
- Recruiting parents/adults for EnergySavings program

10 mins: Closing video (A Green World) / Q&A

Community Awareness Trainings (90 minutes):

5 mins: Opening video (Global warming and fossil fuel impact)

15 mins: **WHY** RENEWABLE ENERGY & SUSTAINABILITY?

- Depletion of current Energy Sources
- National Security Issues
- Environmental Impacts
- Stagnating Economy
- Global Leadership at Risk

15 mins: **WHAT** CAN WE DO TO PROMOTE CLEAN ENERGY

- Alternative Sources (Renewables + Clean coal, Natural Gas)
- Energy Efficiency & Conservation Related Behaviors
- Educating the benefits of Smart Meters & Smart Grids
- Informing the community about Utility multi-tiered billing and how to reduce costs
- Energy Savings / Audits

5 mins: Transition video (zero-carbon city)

15 mins: **HOW** TO MAKE THE SHIFT TO RENEWABLES

- Transition to Solar, Wind, Hydro, BioFuels..

15 mins: “Green” Economy

- Where/What are Green Jobs
- Labor Market Trends
- Steps & Available Resources to Getting a Green Job

15 mins: Closing video (A Green World) / Q&A

invVEST Education Initiatives

