

Industrial Technologies Program

U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

Save
ENERGY
Now



Industrial Utility Webinars:

Public Power Financial Incentives

May 12, 2010

Speakers

- Marc J. Shkolnick, Manger, Energy Services for Lincoln Electric System
- Stephanie Humphrey, Commercial Account Representative, Rochester Public Utilities
- Steve Brooks, Industrial Technical Services Manager,
Bonneville Power Administration
- Mike Mozingo, Key Accounts Manager, ElectriCities of
North Carolina, Inc.



Areas Covered in this Webinar

- Public Power Utilities' Financial Incentives for Industrial Energy Efficiency
- Wholesale Power Suppliers Financial Incentives and Energy Efficiency
- Other Support for Public Power Utilities Efficiency Programs
- Regional Perspectives: Northwest, North Central, Central and Mid-Atlantic U.S.



Sponsors

- DOE Industrial Technologies Program
- American Public Power Association (APPA)
- APPA, Demonstration of Energy-Efficient Developments
- Western Area Power Administration (WAPA)

Questions?

Email: mdunkle@bcs-hq.com



Public Power Financial Incentives:

Energy Efficiency for the Large Commercial and Industrial Sector

Marc J. Shkolnick, CAE
Manager, Energy Services

Lincoln Electric System
May 12, 2010

LES Background Information:

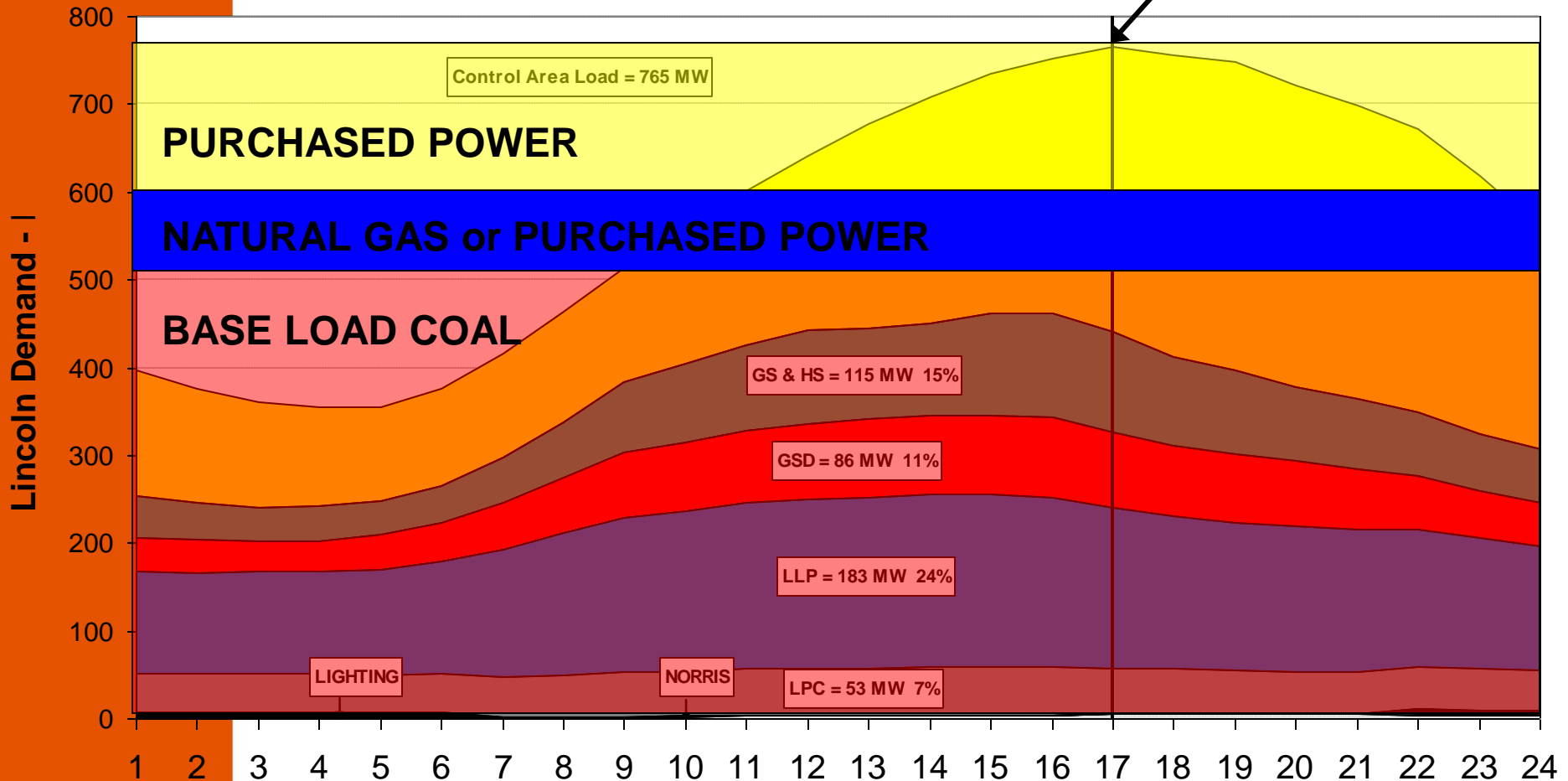
- Vertically integrated public utility serving Lincoln and the bedroom community of Waverly, Nebraska
- State of Nebraska is 100% public power by state statute
- Service territory comprised of 130,000 metered accounts:
 - 207 large commercial industrial customer accounts (peak summer demand of 400 KW or 100,000 kWh for at least six consecutive months)
 - 15,320 small to midsize business customer accounts
 - 112,500 residential accounts

LES Background Information:

- Policy governance by an administrative board appointed by the mayor with budget and rate oversight provided by the city council
- Summer peaking system with all-time peak at 779 MW on July 19th, 2006
- Rates among the lowest 10-15% in the nation
- 5-year SAIDI—29.82 minutes/
5-year ASAI—99.9943%

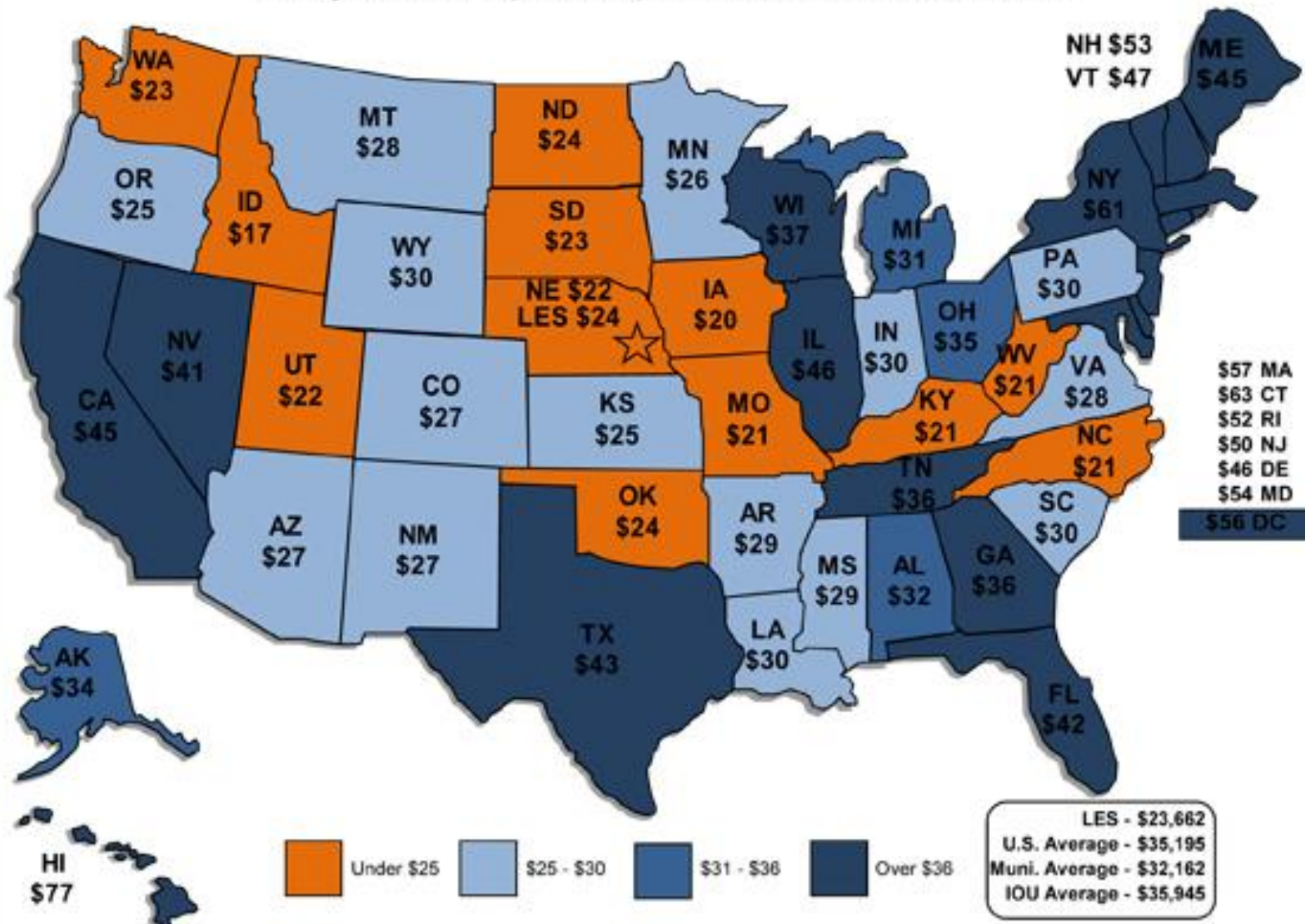
RATE CLASS CONTRIBUTION LINCOLN DEMAND Monday, August 13, 2007

EVERYTHING IS
SIZED FOR THE
PEAK

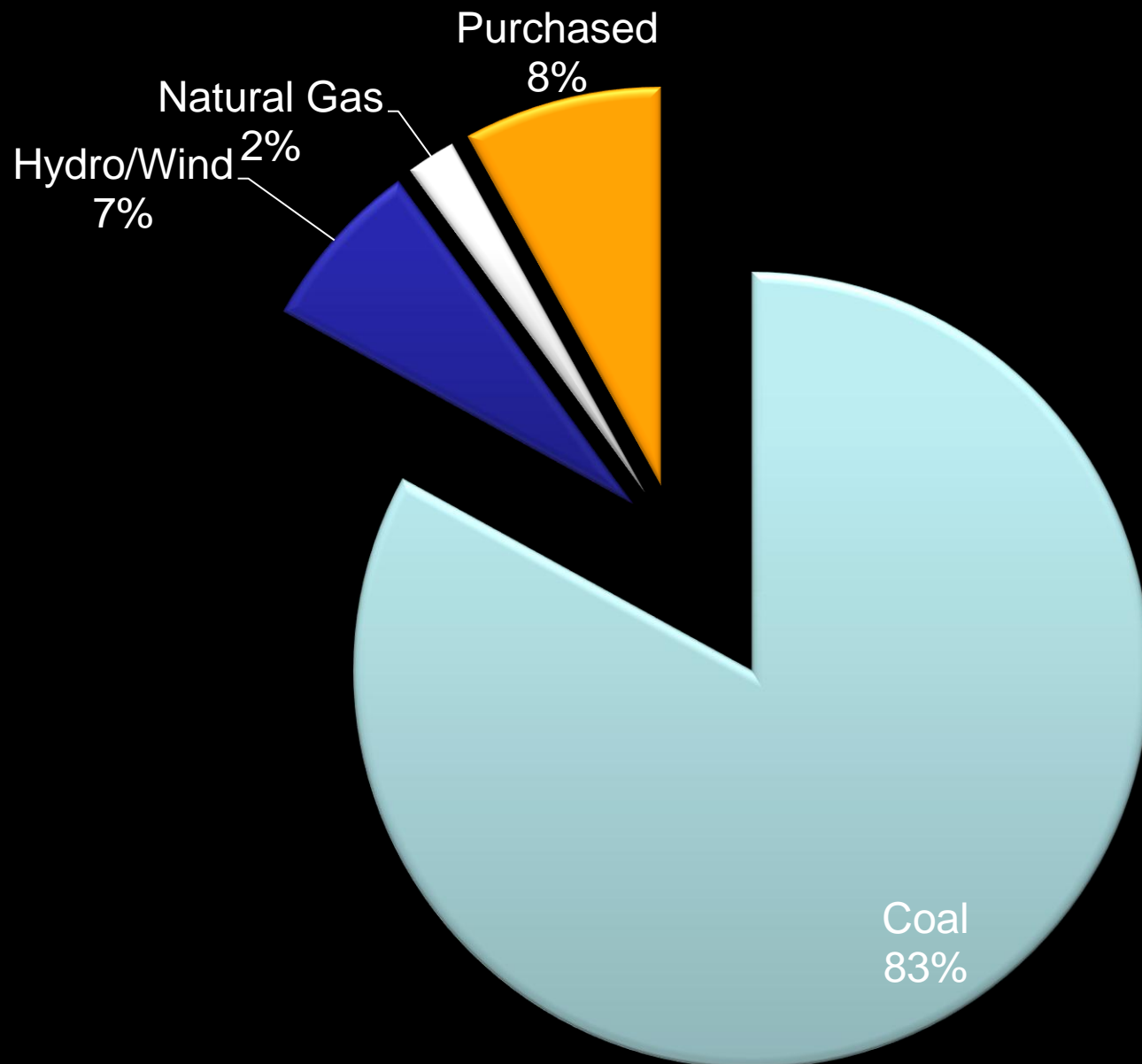


2009 National Rate Survey

Average Bill Per State (Thousands): Industrial - 1,000 kW and 400,000 kWh



LES Power Generation Fuel Sources



What happens when climate
legislation/cap & trade/CO₂
legislation is passed or
regulations are enacted?

Energy Providers have Few Options:

- Capture and sequester CO₂
 - No technology commercially available to do this
 - Would require additional energy to separate CO₂ and additional water
- Develop more renewable
 - Not dispatchable source of generation/better for peak reduction but not base load
 - Transmission Constraints

Energy Providers have Few Options:

- Dispatch Natural Gas Plants for Base Load
 - Would have a significant impact on rates
 - Would introduce tremendous volatility and LES currently does not have a power cost adjustment component for rates
- Curb demand (DSM/Energy Efficiency)
 - Customers change behavior through education, rate design and incentives
 - Distributed, customer owned-generation

Three Keys to Successful Energy Efficiency Programs:

- Empowerment through Education
- Empowerment through Financing
- Engagement and feedback

Empowerment through Education

- Assigned Account Executives for large commercial and industrial customers
 - Provide one-to-one consultation on DSM and EE opportunities
 - Offer energy audits, thermographic imaging and other services to identify opportunities

Empowerment through Education

- Assigned Account Executives for large commercial and industrial customers
 - Provide rate consultation and provide information about rate adjustments and specific impacts on cost
 - Coordinate outage information

Empowerment through Education

- Provide customers with Smart Energy Forum series focusing on energy efficient topics and technologies:
 - Financing energy efficiency
 - HVAC
 - Energy Management Systems
 - Compressed Air
 - Pumps/Motors

Empowerment through Education

- Annual Energy Summit Breakfast
- Provide customers with EnergyLine biweekly e-newsletter
 - Latest LES news
 - Energy Efficiency Technology
 - New industry-segmented content
 - Ask-an-expert

Empowerment through Education



The screenshot shows the EnergyLine website interface. At the top is a glowing yellow city skyline graphic. Below it, the 'EnergyLine' logo is on the left, and 'LINCOLN ELECTRIC SYSTEM' and the '-LES' logo are on the right. A navigation bar contains links: 'My EnergyLine', 'Explore the eLibrary', 'Ask an Expert', 'Newsletters', 'Tools You Can Use', and 'Preferences'. On the right of the navigation bar are 'Print' and 'E-mail' icons. The main content area is divided into three columns. The left column features a user profile for 'Janet Chung', a featured article titled 'Implementing IT Power Management: Tips for Moving Forward in Your Organization' with a brief description and a 'More >' link, a 'Safety Counts' section with a hard hat icon and text about fire protection, and an 'INDUSTRY SPOTLIGHT ON...' section listing various facilities. The middle column has the '-LES' logo, a 'Recent Articles from EnergyLine' section with five article links, a 'Tools You Can Use' section with a toolbox icon and a brief description, and an 'Ask an Expert' section with a person icon and a brief description. The right column is empty.

EnergyLine LINCOLN ELECTRIC SYSTEM **-LES**

My EnergyLine Explore the eLibrary Ask an Expert Newsletters Tools You Can Use Preferences

Print E-mail

My EnergyLine

Janet Chung

Implementing IT Power Management: Tips for Moving Forward in Your Organization

The U.S. Environmental Protection Agency ENERGY STAR® program and the Climate Savers Computing Initiative invite you to attend a free webinar on April 19, 2010 that focuses on how to implement computer power management in your organization.

More >

Safety Counts

Determining the proper level of fire protection for your facility can be daunting. An inadequate system could result in a devastating loss, but an overly robust system may cause unnecessary expense, never-ending maintenance issues, and the loss of valuable storage space. [read more](#)

INDUSTRY SPOTLIGHT ON...

- Data Centers
- Government Facilities
- Grocery/Convenience Stores
- Hospitals
- Restaurants/Food Service

-LES

Recent Articles from EnergyLine

- [Four Finalists Named for LES Administrator & CEO](#)
- [Customers Learn About Funding Energy Efficiency Projects at LES Smart Energy Forum](#)
- ['Current' Developments in Electric Vehicles](#)
- [Waste Oil: A Valuable Energy Source](#)
- [Power Cooking: Energy-Efficient Electric Cooking Equipment](#)
- [Is Your Business Green Enough? Renewable Energy Trading](#)

Tools You CAN USE

Have You Tried Our Tools You Can Use?

Use our tools to help you and others in your organization make sound business decisions. Quickly calculate costs, benchmark with others, and identify improvements. [Try them now!](#)

Ask an Expert

Our researchers, development experts and engineers are available now to answer your industry-related questions at no cost to you. [Ask an Expert now!](#)

Empowerment through Education



Home

Profile

Library

Advisor

LES

Energy Depot for Business



Energy Profile



Library



Energy Advisor



Copyright © 2000 - 2010

[Enercom, Inc](#)

Empowerment through Financing:

- Sustainable Energy Program (SEP)
 - Launched in 2009
 - Customers who are more efficient save money
 - Efficiency delays the need for building the next power plant
 - Efficiency makes LES less reliant on higher cost energy in the summer months

Empowerment through Financing:

- 2009 SEP Offerings
 - Whole House Tune Up
 - High Efficiency Heat Pump
 - Commercial HVAC Maintenance
 - Commercial/Industrial Lighting Retrofit
 - Systems Re/Retro Commissioning
 - Energy Efficiency Innovation Grant
 - Low Income HVAC Replacement

2009 Sustainable Energy Program:

Program	# of Participants	\$ Spent	*KW Impact	*kWh Impact
WHTU	4,021	\$ 210,000	1,368	1,225,594
HEHP	369	\$ 460,000	759	684,264
CHVACM	86	\$ 40,000	214	212,151
CILR	81	\$ 240,000	694	2,974,731
C&I Sys Comm	0	\$ 0	0	0
EEIG	2	\$50,000	51	73,000
LI HVAC Retro	47	**\$100,000	60	53,952
TOTAL	4,606	\$ 1,100,000	3,146	5,223,692

*Deemed annual reduction/life cycle not calculated

**Matched with \$100,000 from 2008 Low Income Home Energy Conservation Act

Empowerment through Financing:

- 2010 SEP Offerings
 - Whole House Sealing and Insulation
 - High Efficiency Heat Pump & AC
 - Commercial/Industrial Lighting Retrofit
 - Commercial/Industrial Energy Efficiency Program
 - Energy Efficiency Innovation Grant
 - Energy Efficiency 4th/5th Grade Education Curriculum & Kits

Commercial-Industrial Lighting Retrofit Program:

- Incentive Structure
 - Prescriptive incentives ranging from \$5 to \$75 per replaced fixture
 - Custom program available for projects including lighting not on prescriptive program or projects reducing number of fixtures

Commercial-Industrial Lighting Retrofit Program:

- Terms & Conditions
 - Existing commercial facilities only
 - \$25,000 maximum per customer to be applied to one or more facilities
 - Projects receiving incentives of \$5,000 or more must receive pre and post site inspection from LES staff

Commercial-Industrial Energy Efficiency Program:

- Incentive Structure
 - VFD retrofit at \$30/HP
 - Pumps/Motors retrofit at \$20-\$400 based on size and efficiency rating
 - Compressed air system audit/maintenance at \$0.09/deemed first-year kWh reduction and up to 50% (max of \$5,000) for system audit
 - Cooling system replacement at \$20 to \$60 per ton

Commercial-Industrial Energy Efficiency Program:

- Incentive Structure
 - Energy Management System installation or upgrade at up to 30% of project cost
 - Systems Re/Retro Commissioning at 50% for study (\$10,000 max) and \$0.09/deemed first-year kWh reduction
 - Custom programs also available with incentive to be determined based on deemed life cycle KW and kWh savings

Energy Efficiency Innovation Grant:

- Incentive Structure
 - Total grant pool of up to \$50,000
 - One to 10 grant awards ranging from \$10,000 to \$100,000
- Terms & Conditions
 - Submit grant request by June 1, 2010
 - Grant awarded based on plans demonstrating greatest peak demand and energy reduction at lowest cost, degree of innovation, and transferability to other LES customers

SEP General Terms & Conditions:

- Incentives only apply to projects started on or after February 1, 2010
- Incentives only available to LES customers with accounts in good standing
- Incentives will not be paid without submission of preauthorization form
- Incentives will not exceed the project cost

[Transmission Lines](#)[Report Outages](#)[Pay Your Bill](#)[Start/Stop Service](#)[Careers](#)[Contact Us](#)

USE **-LES** TO SAVE MORE

[YOUR HOME](#)[Your Home Menu:](#)[YOUR BUSINESS](#)[Your Business Menu:](#)[YOUR LES](#)[Your LES Menu:](#)

LES' Sustainable Energy Program

[Click here](#) to take advantage of financial incentives for making your home or business more energy efficient!

Contractor or Customer Self-Installer? [Click here.](#)

LES Smart Energy Forum to offer advice on funding energy-efficiency projects. Commercial and industrial

LES' 2010 Sustainable Energy Program (SEP) is underway. The energy efficiency program offers



LINCOLN ELECTRIC SYSTEM



YOUR LES

[Resource Library](#)
[News](#)
[Mission & Background](#)
[Facilities](#)
[Management & Board](#)
[Financial Information](#)
[Rates](#)
[Careers](#)
[Community Involvement](#)
[Economic Development](#)
[Transmission Lines](#)
[Contact Us](#)

YOUR HOME

[Your Home Menu:](#)

YOUR BUSINESS

[Your Business Menu:](#)


LES' SUSTAINABLE ENERGY PROGRAM - ANOTHER WAY TO SAVE MONEY AND ENERGY

Are you a contractor or customer self-installer? [Click here.](#)

LES' rates are among the lowest in the nation. And, our **Sustainable Energy Program (SEP)** is designed to help keep them that way.

It's very simple. Customers taking advantage of this program will **save money**, **help reduce the need for energy** during more expensive peak periods of the year and ultimately **help delay the necessity to build additional, high-cost power plants**.

Sustainable reduction in energy use will help keep our rates among the lowest. That's why we're offering **financial incentives** to residential and commercial customers to increase energy efficiency.

How can I take advantage of the SEP?

See the contact information of [SEP participating contractors](#) who are eligible to provide you an immediate LES Green Credit upon purchase of eligible equipment and/or services from them **on or after Feb. 1, 2010**. Incentives are exclusively available to LES customers with accounts in good standing. But don't wait. **Financial incentives are available on a first-come, first-served basis** for the following programs:

Whole-House Sealing and Insulation

Residential customers in existing homes with no wall insulation and minimal attic insulation can qualify for up to 50 percent of the project cost up to \$1,000 to seal penetrations and upgrade insulation levels to current energy code standards. In addition, customers may qualify for a federal tax credit and will enjoy more comfort and reduced energy bills.

High-Efficiency Heat Pump and Central Air Conditioning



YOUR LES

Resource Library

News

Mission & Background

Facilities

Management & Board

Financial Information

Rates

Careers

Community Involvement

Economic Development

Transmission Lines

Contact Us

YOUR HOME

Your Home Menu:

YOUR BUSINESS

Your Business Menu:

LES' SUSTAINABLE ENERGY PROGRAM - ANOTHER WAY TO SAVE MONEY AND ENERGY

Registered Contractor/Customer Self-Installer

Not registered to participate? [Register now.](#)

2010 SEP funds available
as of 2/15/10

\$831,942

LES is pleased to work with [local contractors and customer self-installers](#) to support energy efficiency for residential, small business and large commercial and industrial customers in our community.

Following is a variety of program descriptions, terms and conditions and corresponding forms that contractors and customer self-installers will need to **reserve funds and seek reimbursement for providing LES Green Credits**. Be sure to **complete all information before submitting** to LES to ensure that preauthorization and payment processing are done in a timely manner.

Thank you for enabling the community to become more sustainable through the use of energy-efficient technology.

Whole-House Sealing and Insulation

Residential customers in existing homes with no wall insulation and minimal attic insulation can qualify for up to 50 percent of the project cost up to \$1,000 to seal penetrations and upgrade insulation levels to current energy code standards. In addition, customers may qualify for a federal tax credit and will enjoy more comfort and reduced energy bills.

- [Terms and Conditions](#)
- [Preauthorization](#) (Submit before providing an on-bill LES Green Credit.)
- [LES Green Credit Reimbursement](#) (Submit within 30 days of receiving your preauthorization number from LES.)
- [ENERGY STAR® Sealing and Insulation Guide](#)

2010 *Projected Sustainable Energy Program:

Program	# of Participants	\$ Spent	KW Impact	kWh Impact
WHSI	20	\$ 20,000	16	54,750
HEHP&AC	290	\$ 370,000	579	515,740
CILR	139	\$ 310,000	836	3,233,813
CIEE	20	\$ 200,000	600	2,000,000
EEIG	2	\$ 50,000	60	300,000
**EE Curriculum	2,400	*\$ 50,000	150	624,000
TOTAL	2,871	\$ 1,000,000	2,242	6,728,303

*Projected results based on average dollars, KW and kWh realized through April, 2010

**Matched with \$50,000 from American Recovery and Reinvestment Act (ARRA) funding administered through the Nebraska Energy Office

Questions?

Marc J. Shkolnick, CAE
Manager, Energy Services
Lincoln Electric System

mshkolnick@les.com

402.314.4119

RPU's Energy Efficiency Programs for Industrial Customers

Stephanie Humphrey
Commercial Account Representative
Rochester Public Utilities
Rochester, MN

U.S. Department of Energy
Public Power Financial Incentives Webinar
May 12, 2010

Agenda

- About RPU
- Minnesota's Conservation Improvement Program
- RPU's Conservation Requirements
- RPU's Conserve & Save Programs
 - Energy Efficiency Rebates
 - Partnering in Energy Solutions
- Results

About RPU

- Electric and water utility
- Serve the city of Rochester, MN
- Largest municipal utility in MN
- Over 47,000 electric customers
 - Residential ~ 43,000
 - Commercial & Industrial ~ 4,000

About RPU

- Marketing Partnership with Austin Utilities and Owatonna Public Utilities (referred to as “The Triad”)
 - Meet monthly
 - Efficiencies: technical expertise among the group, divide duties
 - Most electric programs are the same for three cities
 - Share joint program costs (e.g., printing rebate applications, advertising)

Minnesota's Conservation Improvement Program (CIP)

- Since the early 1990's - Minnesota public electric and gas utilities, have been required to spend 1.5% of their annual gross operating revenues on energy conservation improvement programs.
- Minnesota Next Generation Act of 2007 – Changed CIP from a spending requirement to **include** a savings requirement with an energy saving goal of 1.5% of annual retail energy sales for each utility – essentially doubling the amount of energy saved by Minnesota's utilities.

RPU's Conservation Requirements

2009 (1.25% of sales)

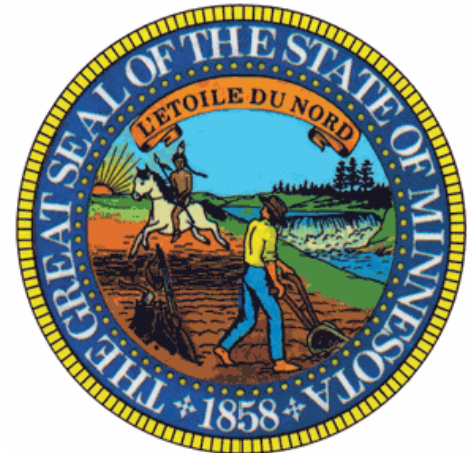
- 16,994,220 kWh saved (104.4% to our goal)
- \$2,303,375 spent

2010 (1.5% of sales)

- 19,649,530 kWh saved
- \$1,958,550 (1.5% spending requirement of GOR)

2011 (1.5% of sales)

- 19,770,298 kWh saved
- \$1,981,845 (1.5% spending requirement of GOR)



Energy Efficiency Rebate Programs

1. ENERGY STAR® Appliances and Equipment
2. Anti-Sweat Heater Controls
3. **Cooling Equipment***
4. Food Service Equipment
5. Heat Pumps – Air Source and Ground Source
6. **Lighting***
7. **Motors***
8. **Variable Speed Drives***
9. VendingMiser®
10. **Custom Efficiency***

*Programs most utilized by Industrial Customers.

Cooling Equipment

- Rebate: \$8-15/ton + efficiency bonuses
 - Requirement varies on type and size of units
 - Rooftop, Packaged, and Condensing A/C Units
 - Water-Cooled and Air-Cooled Chillers

Lighting

- Rebate: varies on lighting type
 - Requirement varies – available for retrofit projects and some new construction
- Bonus Rebate Program
 - T12 Roundup - **Limited Time Offer!**
 - January 1-June 30, 2010 for replacement of T12 lamps
 - An additional rebate of \$2 will be paid per qualifying lamp installed

Motors

- Rebate: \$20-\$2400
 - Requirements vary on size and type of motor
 - Up to 200 hp
 - Premium-Efficiency and Enhanced Premium-Efficiency options
 - Rebates significantly higher when replacing a working motor

Variable Speed Drives

- Rebate: \$150-\$3600
 - Requirements – fan or pump applications
 - Up to 200 hp

Custom

- Rebate: \$0.045 per kWh saved
 - Requirements – project must show adequate kWh savings
 - Calculations based on the annualized first year savings

Examples of Custom Rebates

- Large comfort cooling fans
- Building automation systems
- Freezer and cooler door curtains/controls
- Lighting control systems
- Computer CRT replacements
- Energy recovery wheels
- Computer shutdown systems
- Specialty items/systems that reduce kWh

Partnering In Energy Solutions

- RPU partners with businesses to implement energy saving solutions
- RPU partners with local trade allies to connect with C&I customers
- RPU provides financing for qualifying C&I customers
 - Energy Efficiency Financing
 - Green Financing

Energy Efficiency Financing

- Project must qualify for one of our rebate programs
- Project must be completed by an Energy Solutions Partner (ESP)
- Revolving financing dollars of \$500,000
- Finance up to \$25,000 per project at 0% interest
 - Put right on the utility bill for up to 24 months
 - Admin fee

How the Utility Wins

- Avoid future generation needs
- Meet state mandated energy goals
- Strong customers = long-term business
- Build customer relationships

How the Customer Wins

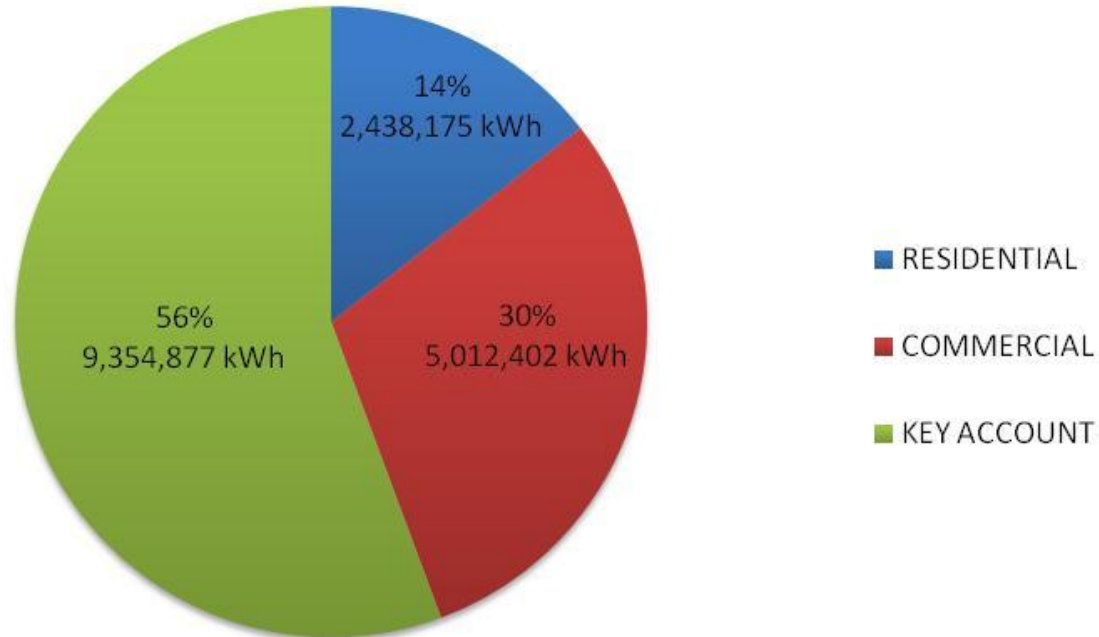
- Save energy and money
- Gain a competitive edge over their more wasteful competitors
- Improve reputation among customers, suppliers and employees
- Improved employee productivity

How the Energy Solutions Partner (ESP) Wins

- Better customer service
- Increased sales
- Customer loyalty
- Pre-qualified leads
- Project financing
- Recognition in advertising

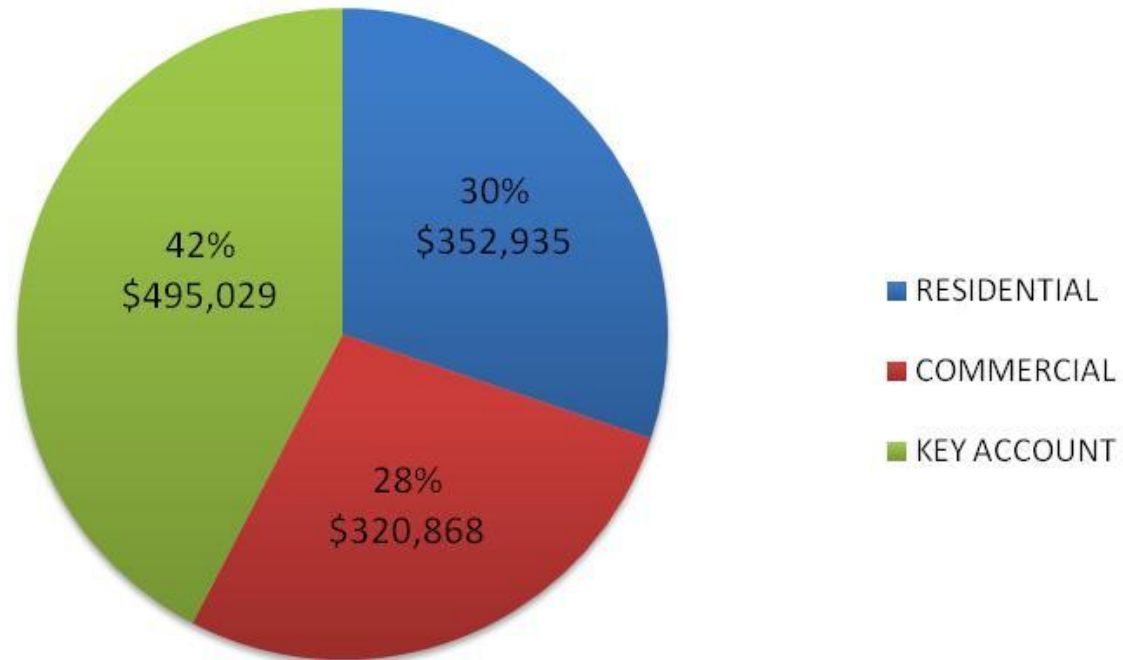
Results from 2009 – kWh Saved

2009 kWh Saved Per Segment
As of December 31, 2009

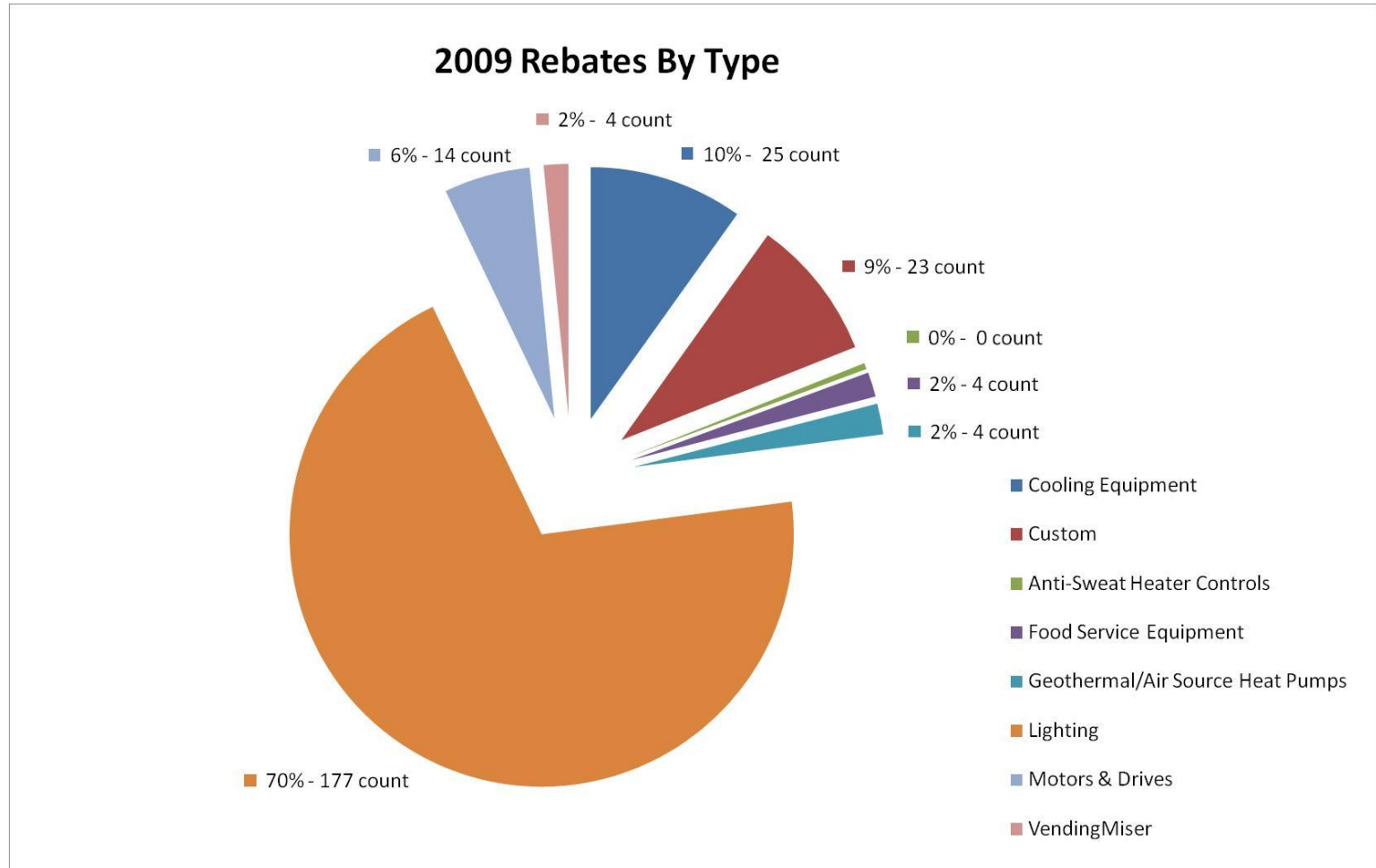


Results from 2009 – Dollars Spent

**2009 Rebate Dollars Spent Per Segment
As of December 31, 2009**



Results from 2009 – Rebate Types



Contact Information

Stephanie Humphrey

507.280.1639

shumphrey@rpu.org

www.rpu.org



Energy Smart Industrial

BPA ENERGY EFFICIENCY



Who is Bonneville Power Administration...

- Federal Power Marketing Agency – Department of Energy (e.g., WAPA)
- Been around since 1937
- Bonneville Power Administration's (BPA) service area covers Idaho, Oregon, Washington and Western Montana; also portions of California, Nevada, Utah and Wyoming.
- Markets and transmits power generated from the Federal Columbia River Power System (FCRPS).*
- Approximately 8,000 aMW of energy is generated annually.
- Self-financed ~ \$3.5 billion/yr, pays US Treasury \$1B/yr.

*The FCRPS includes 31 Federal hydro project dams, 1 non-federal nuclear plant and several small non-federal power plants (and wind generation); all of these are carbon-free!



BPA Energy Efficiency...

- BPA – Promoting Energy Efficiency since 1980
 - U.S. Congress passed the Pacific Northwest Electric Power Planning and Conservation Act
 - 20 year conservation plan, updated every five years
 - 85% of load growth accounted for by energy efficiency
- Works in partnership with customer utilities
- Incentive applications submitted to serving utility
- Incentives paid by serving utility
- Energy is inexpensive, need aggressive incentives
 - Energy rates \$.02 - \$.05/kWh
 - \$.25/kWh capped at 70% of project cost



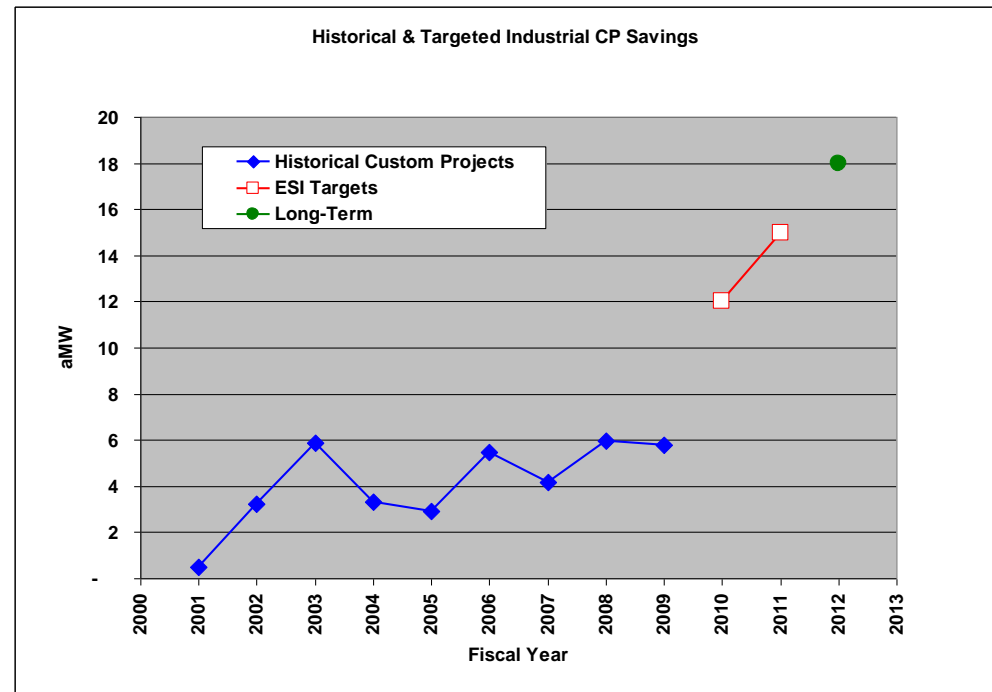
Energy Smart Industrial (ESI) Program

Savings goals double
historic delivery

- **12 aMW** for FY2010 and **15 aMW** for FY2011

Industrial energy
management is new

- Energy management is 1/3 of potential industrial savings in the Sixth Power Plan



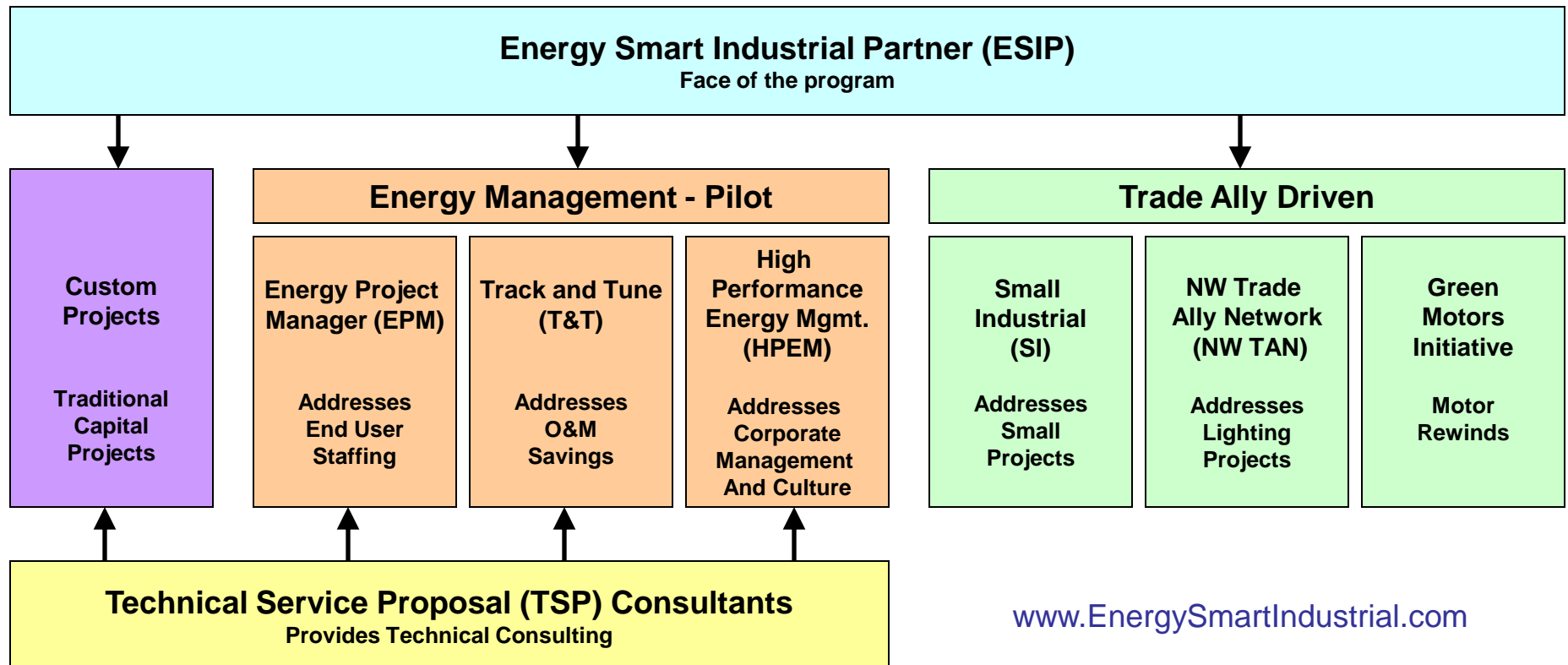
ESI Program Design Highlights

- Major focus on utility and end user relationships
- Allows utility to select components and level of engagement (goals)
- Roles and processes clearly defined
- Applies 'boots on the ground' concepts
- Has something to offer everyone:
 - Large and small utilities
 - Large and small facilities and industrial systems/processes
- Cost effective ~\$2 Million aMW



To Reach Goal:

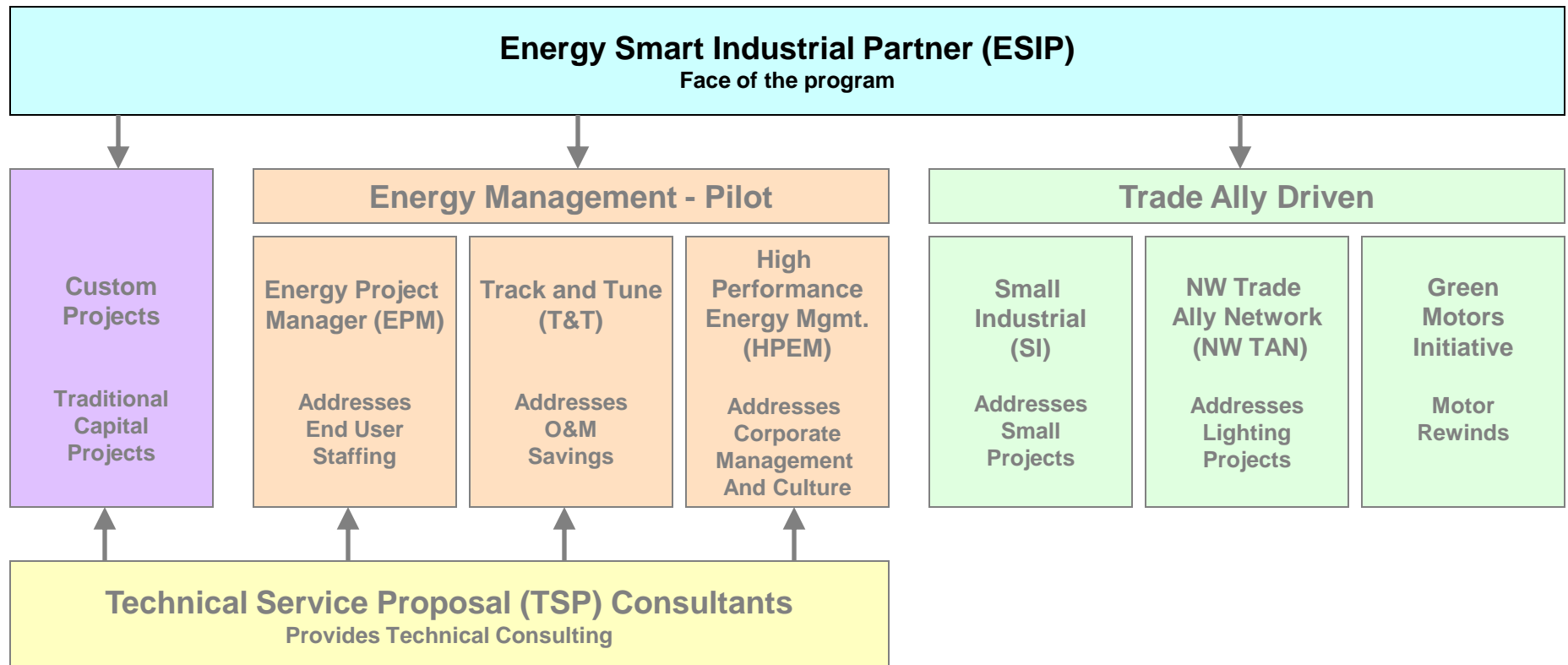
Expand offerings, increase incentives and 'boots on the ground'



www.EnergySmartIndustrial.com



ESI Program Component - ESIP



ESIP - The Face of the Program

Modeled after Energy Trust of Oregon's Program

Utility Level:

- Develops and executes account plan

End User Level:

- Promotes program participation to end users
- High level identification of potential projects

Project Level:

- Assists TSP consultant and review work products
- Works with end user to drive project implementation



Benefits of the ESIP?

1. **Point of Contact** - Provide utilities with a single point of contact for representation of ESI Programs and resources
2. **Enhanced Delivery** - Enhance utility's industrial conservation program delivery and performance
3. **Increased Participation** - Generate participation by industrial end users in the ESI Program and drive implementation of projects
4. **Technical Resource** - Serve as an industrial technical resource to utilities
5. **PTR** - Manage and review technical work products, including entries and updates to the PTR system
6. **TrakSmart** – Manage project information into the TrakSmart software system



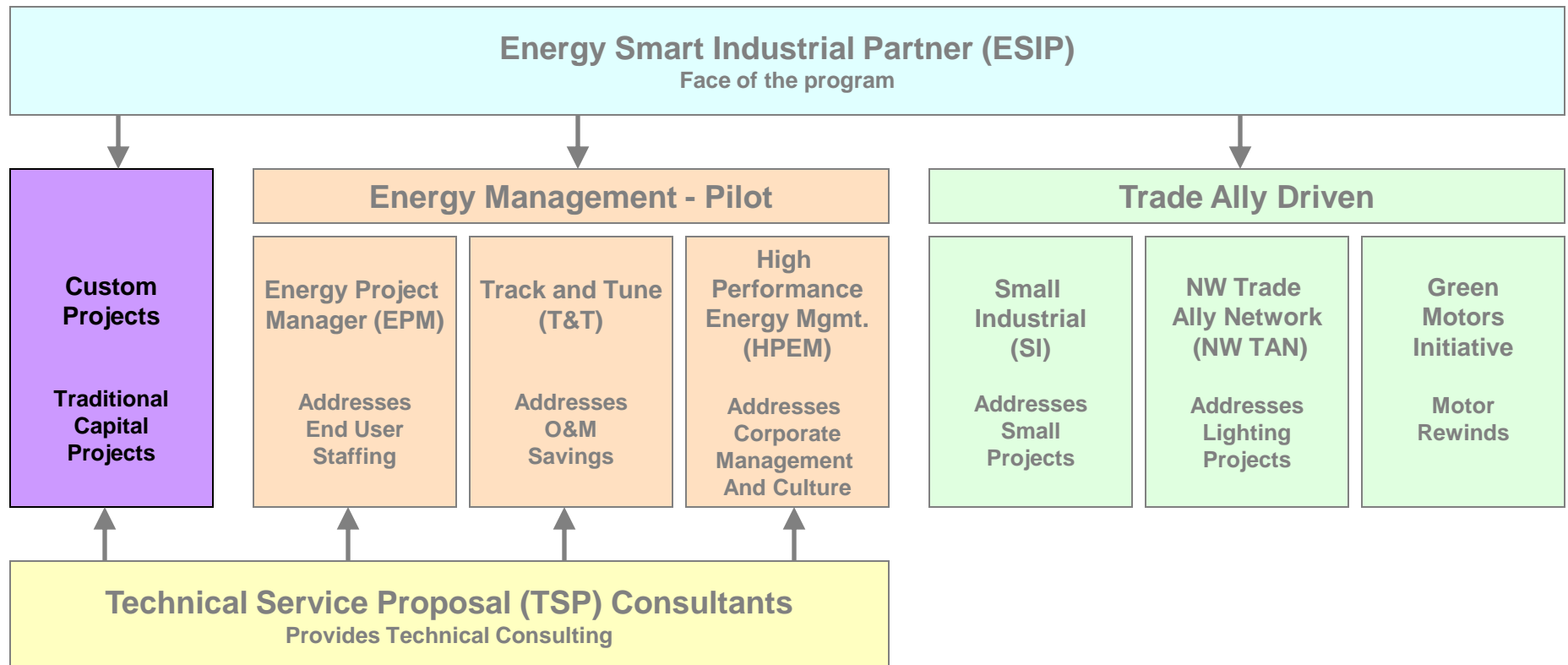
Tailored Approach – Utility Account Plans

During initial meeting:

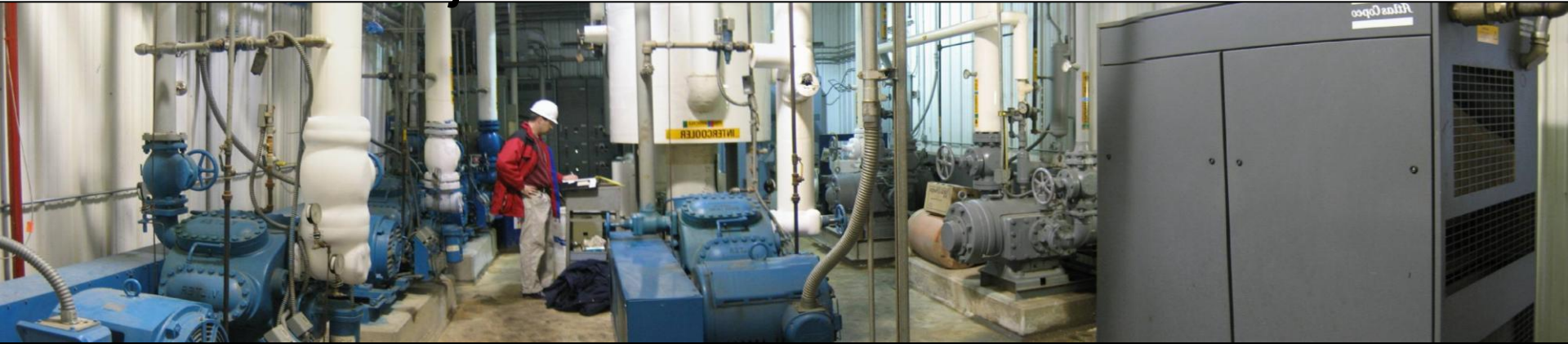
- Establish the Communication Guidelines
 - Program components to offer, 'level of engagement' and marketing plan to end users.
 - Outline roles and processing preferences
- Review Utility data and targets
 - Industrial base load and number of customers.
 - Industrial budget (i.e., Conservation Rate Credit and Energy Conservation Agreement)
 - Industrial aMW target
 - Impact 6th Power Plan and Initiative 937 (WA state only)



ESI Program Component – Custom Projects



Custom Project efforts

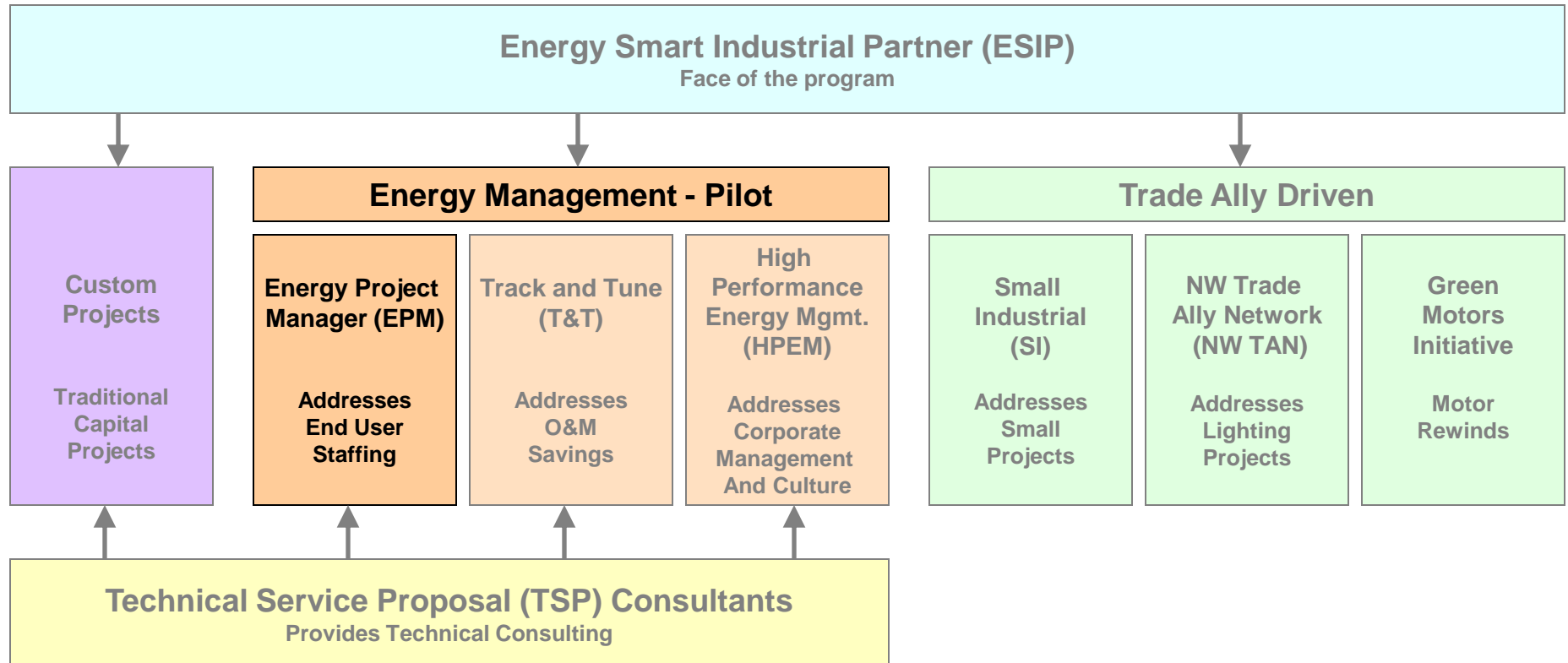


Custom Projects remain the core of BPA's ESI program
Incentives: \$0.25/kWh up to 70% incremental project cost

- Pumps
- Fans
- Compressed Air
- Refrigeration
- Motors
- Variable Frequency Drives (VFDs)
- Control Upgrades
- Process Upgrades
- Lighting



ESI Program Component - Energy Project Manager



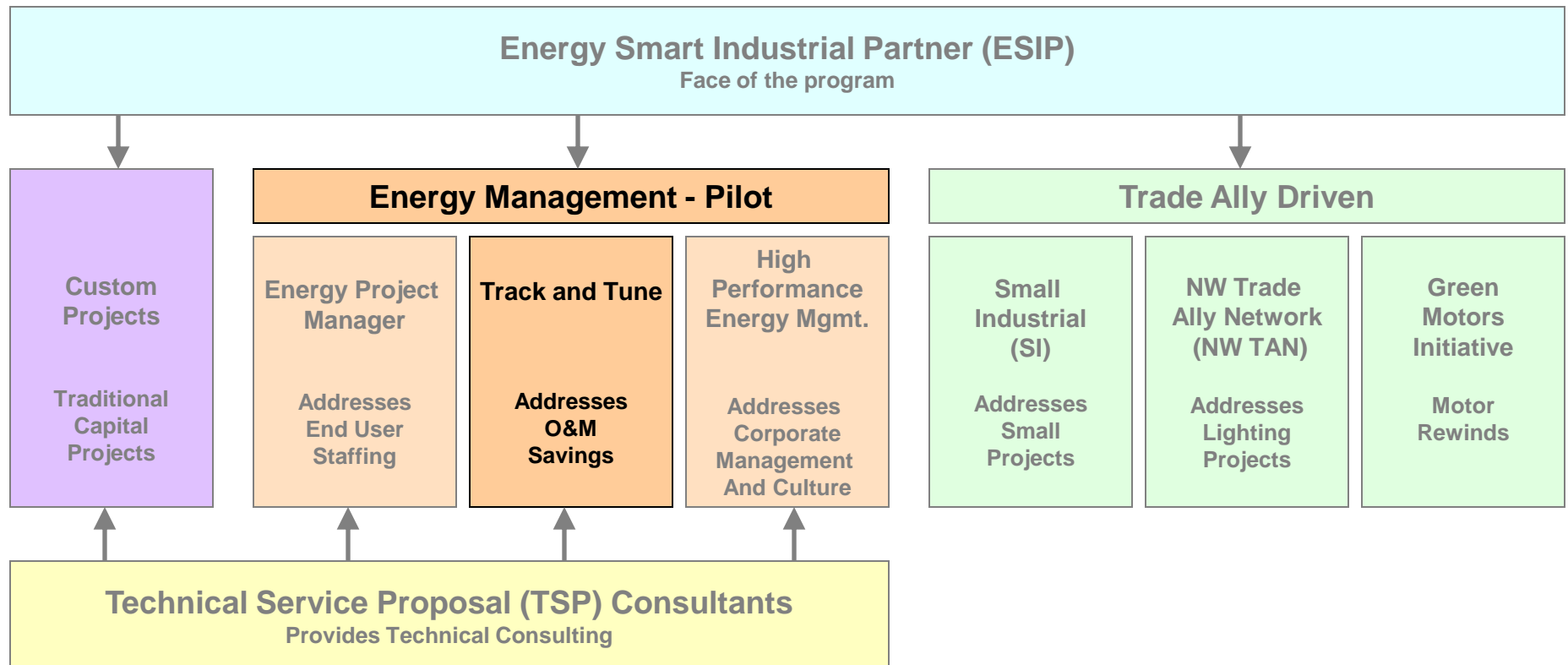


Energy Project Manager

- Co-funded staff position to drive and manage energy efficiency projects
 - 2.5¢/kWh of delivered savings (NTE \$250K or loaded salary)
- Create and target facility's energy savings goal
- Continued funding is contingent upon achieving the goal



ESI Program Component - Track and Tune



Track and Tune

Capturing O&M Opportunities



Tuning Regulators



Dirty Evaporators



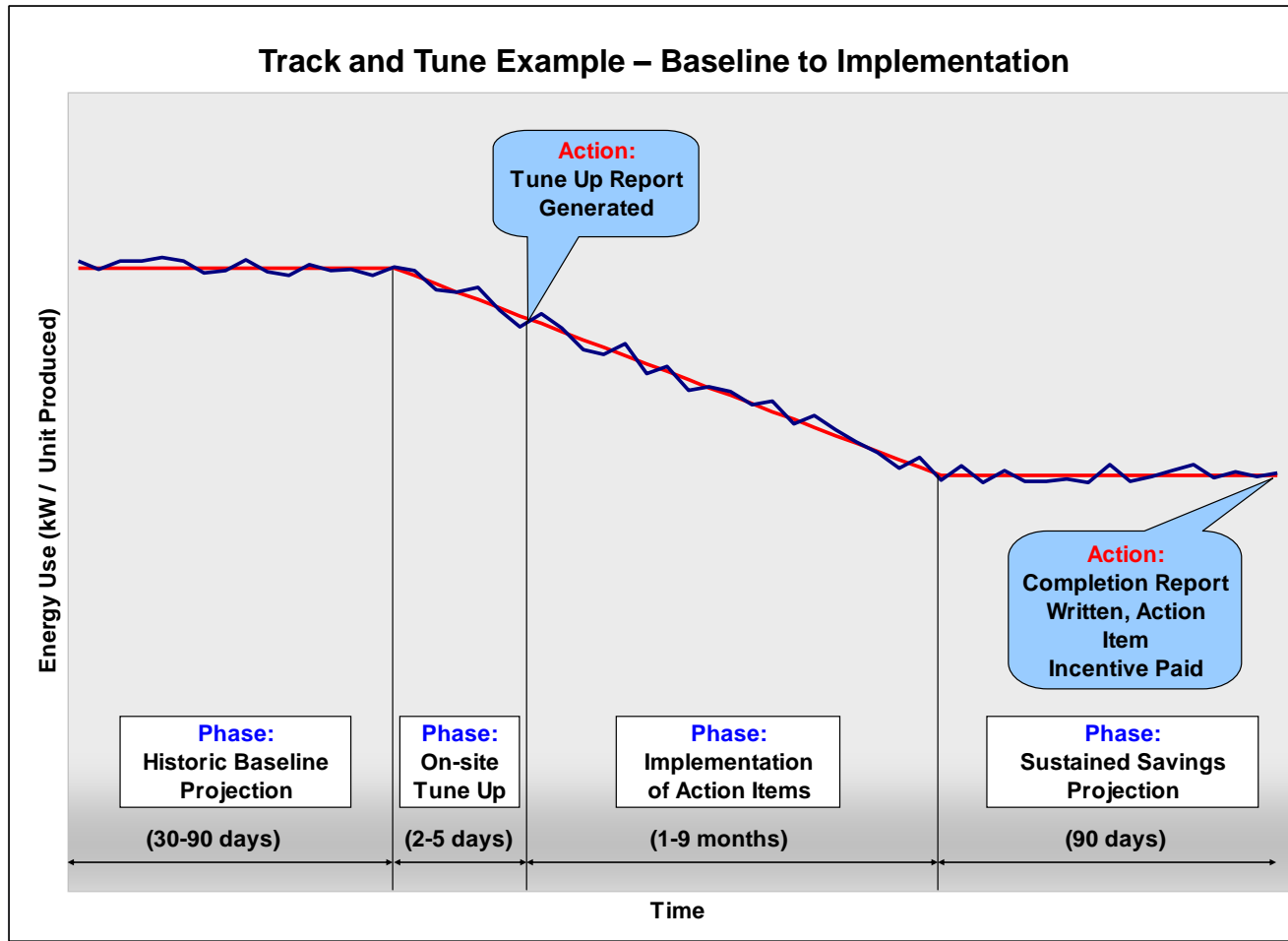
Incorrect Coil Liquid Feed

What is Track and Tune?

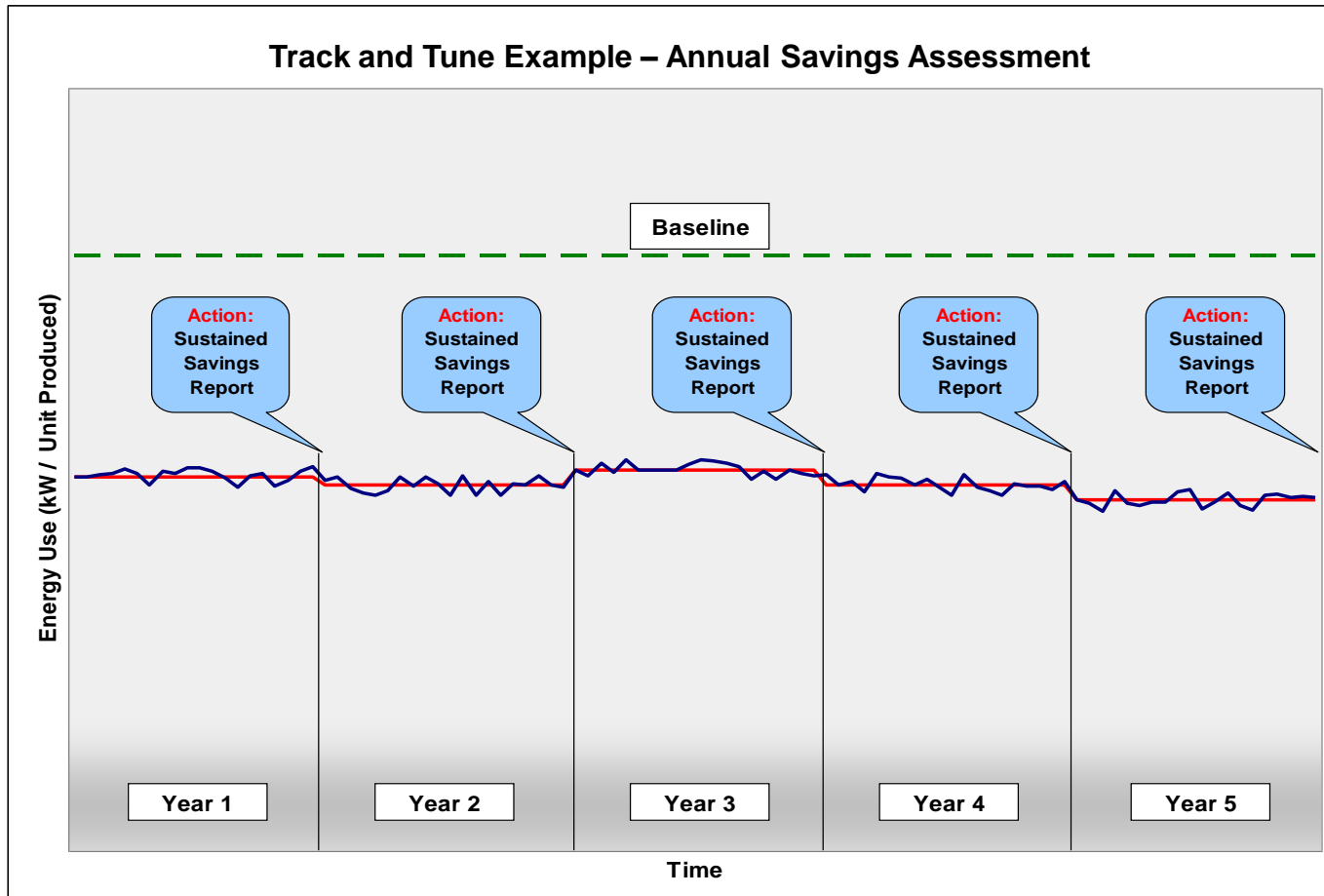
- Targeting energy savings through low and no cost operations and maintenance (O&M) improvements
- Can be applied to entire facility or targeted sub-systems
- Baseline and savings documented and tracked via comprehensive tracking system
 - BPA funds tracking system: 2.5¢/kWh capped at \$50K
- Incremental savings documented annually for 5-year period
 - 7.5¢/kWh up to 70% for low-cost O&M measures (one time)
 - 2.5¢/kWh annual sustained savings incentives (every year for 5 years)



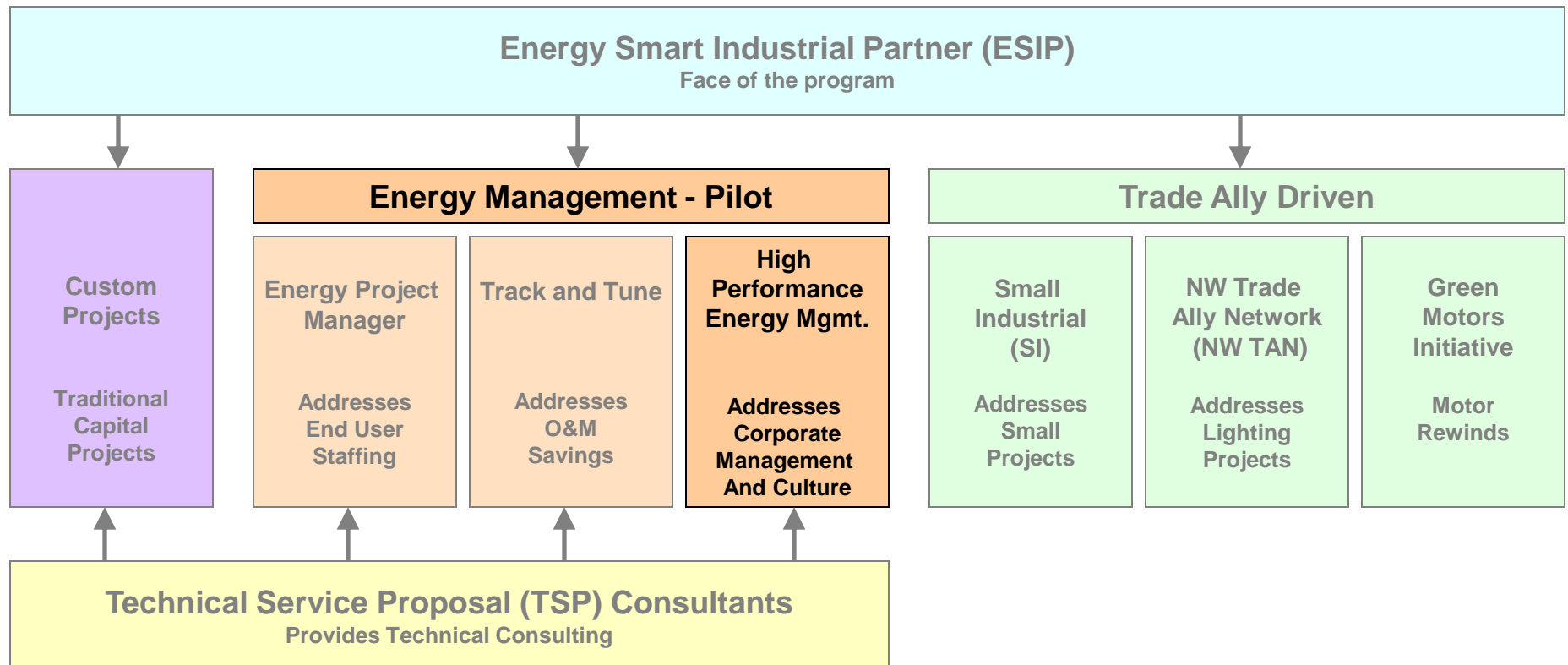
Track and Tune Project Flow



Track and Tune Project Flow



ESI Program Component - High Performance Energy Management

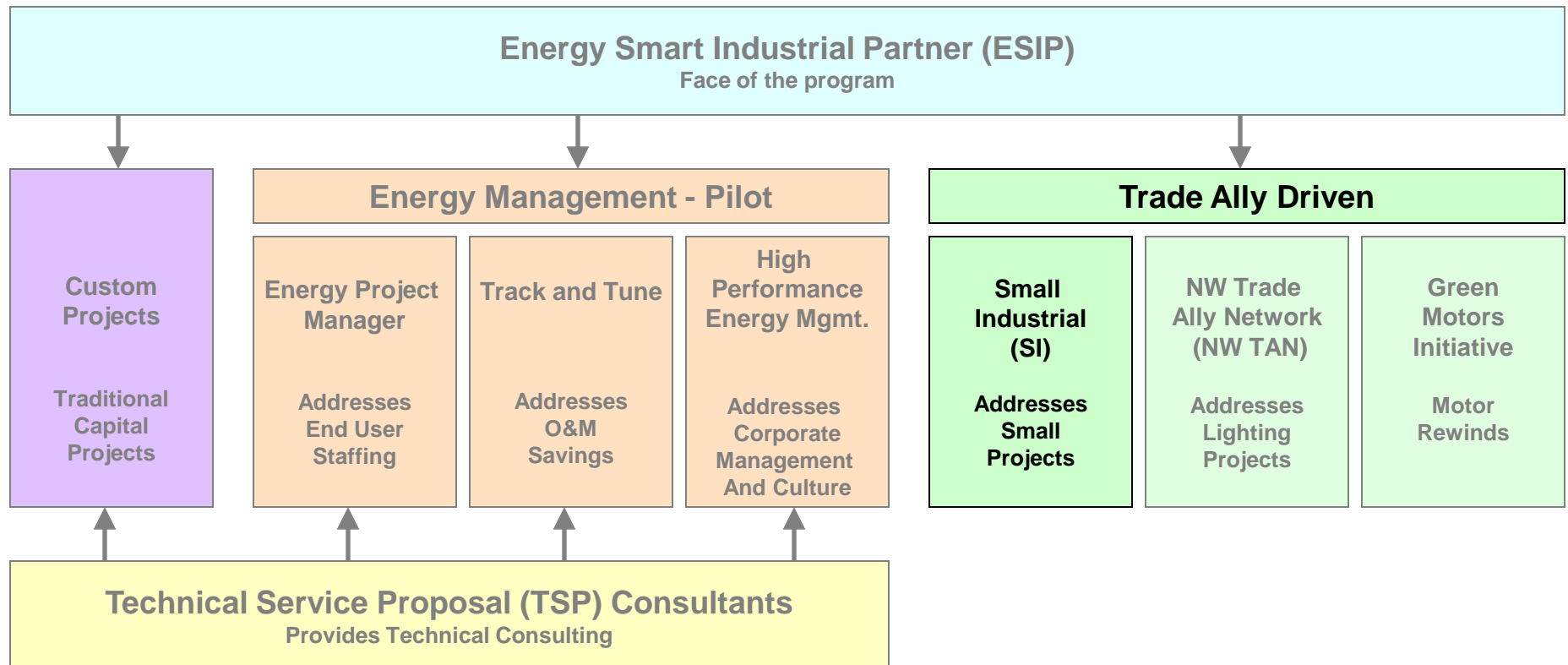


High Performance Energy Management

- Continuous energy improvement
 - Similar to ISO, Lean, etc.
 - 2.5¢/kWh annual sustained savings incentives (every year for 5 years)
- Includes organizational and technical aspects
- High Performance Energy Management Delivery:
 - One-on-One Coaching
 - Structured Network Group
- Increased custom projects and Track and Tune project delivery to program



ESI Program Component - Small Industrial



Small Industrial Efforts

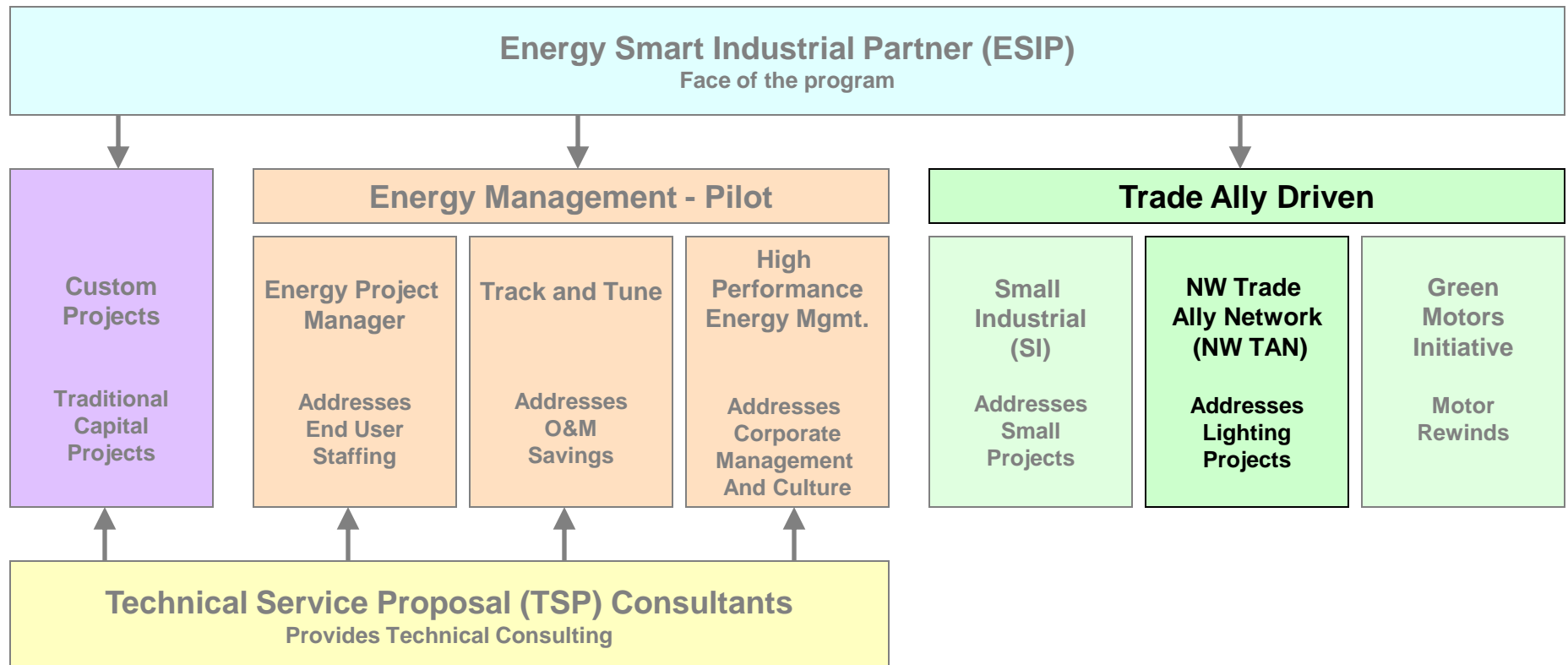


Addresses small-sized industrial projects

- Independent of facility size
- Uses simple analysis tools, Light M&V plan and leverages trade allies
 - Compressed Air (<75 hp)
 - Additional tools in development (refrigeration, VFD, etc.)
- Custom incentives: \$0.25/kWh up to 70% incremental project cost.



ESI Program Component - Northwest Trade Ally Network



Northwest (Lighting) Trade Ally Network

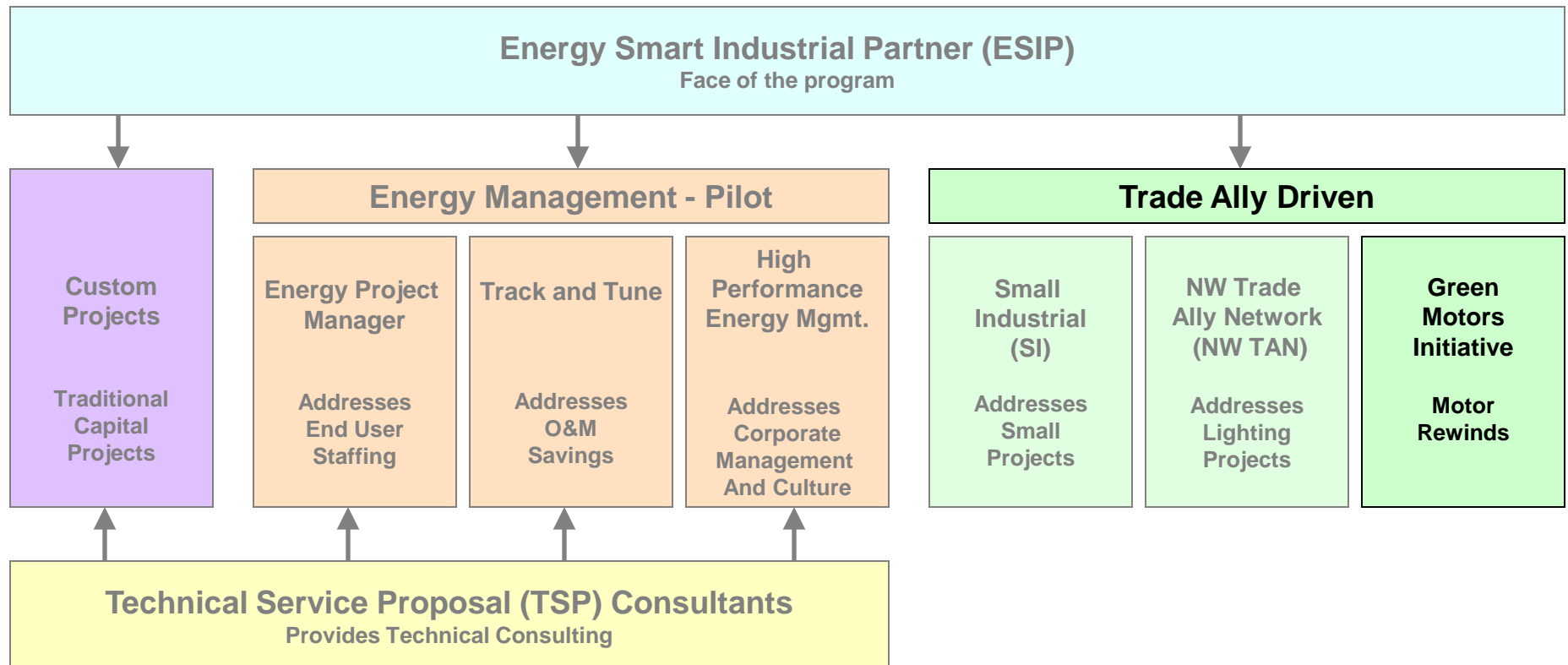


Builds on existing Commercial/Industrial (C&I) Trade Ally Network (TAN) program.

- Dedicated lighting specialists
 - Increase the number and magnitude of industrial lighting projects to BPA Utility customers.
 - Provides project-specific support on industrial lighting projects.



ESI Program Component - Green Motors Initiative



Green Motors Initiative

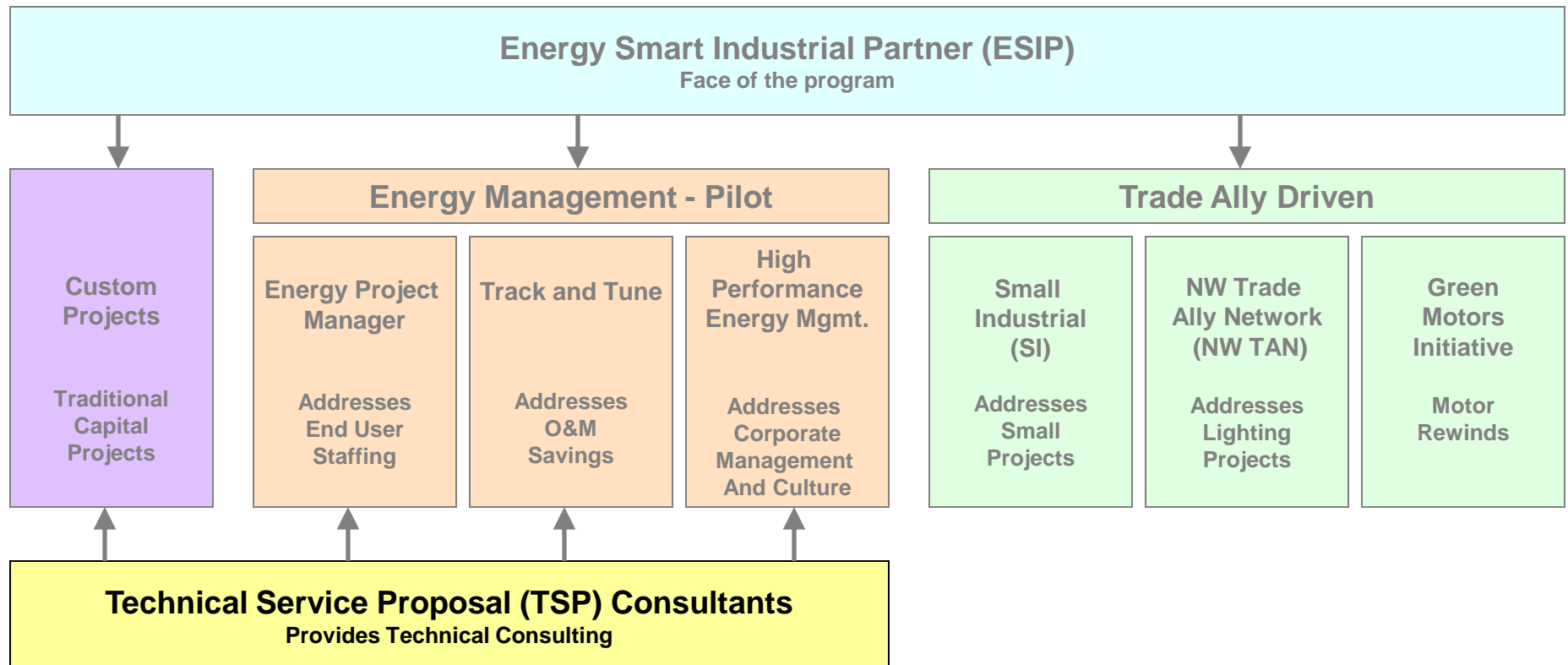


- **GREEN REWINDS** for NEMA Rated Motors 15 hp-5000 hp.
- Leverages local motor service centers.

HP Examples	Annual Savings GREEN REWIND @ .05 per kWh	End User Incentive	First Year Savings
15	\$14	\$15	\$29
30	\$29	\$30	\$59
100	\$78	\$100	\$178
300	\$263	\$300	\$563
500	\$437	\$500	\$937
1000	\$1,037	\$1,000	\$2,037



ESI Program Component - Technical Services



Incentive Levels

- Incentive payment requirement for utilities
 - 100% incentive pass through to end user (Custom Project)
- Custom Projects
 - Retrofit 25¢/kWh up to 70% of **incremental** project cost (includes qualifying lighting and small industrial projects)
- Project Progress Payments
 - Progress payments are available for qualifying projects.
- Utility Performance Payments
 - Specific utility costs incurred to support energy savings activities may qualify.



Incentive Levels, continued

- Energy Management Pilot
 - Energy Project Manager
 - 2.5¢/kWh of delivered savings (NTE \$250K or loaded salary)
 - Track and Tune
 - TSP or Expert Scoping and Tune-Up Funding
 - 7.5¢/kWh up to 70% for low-cost O&M measures (one time)
 - 2.5¢/kWh annual sustained savings incentives (every year for 5 years)
 - High Performance Energy Management
 - 2.5¢/kWh annual sustained savings incentives (every year for 5 years)



Contact Information

- Steve Brooks of BPA
 - Phone: (503) 230-4423
 - Email: sabrooks@bpa.gov



Energy Efficiency RFPs

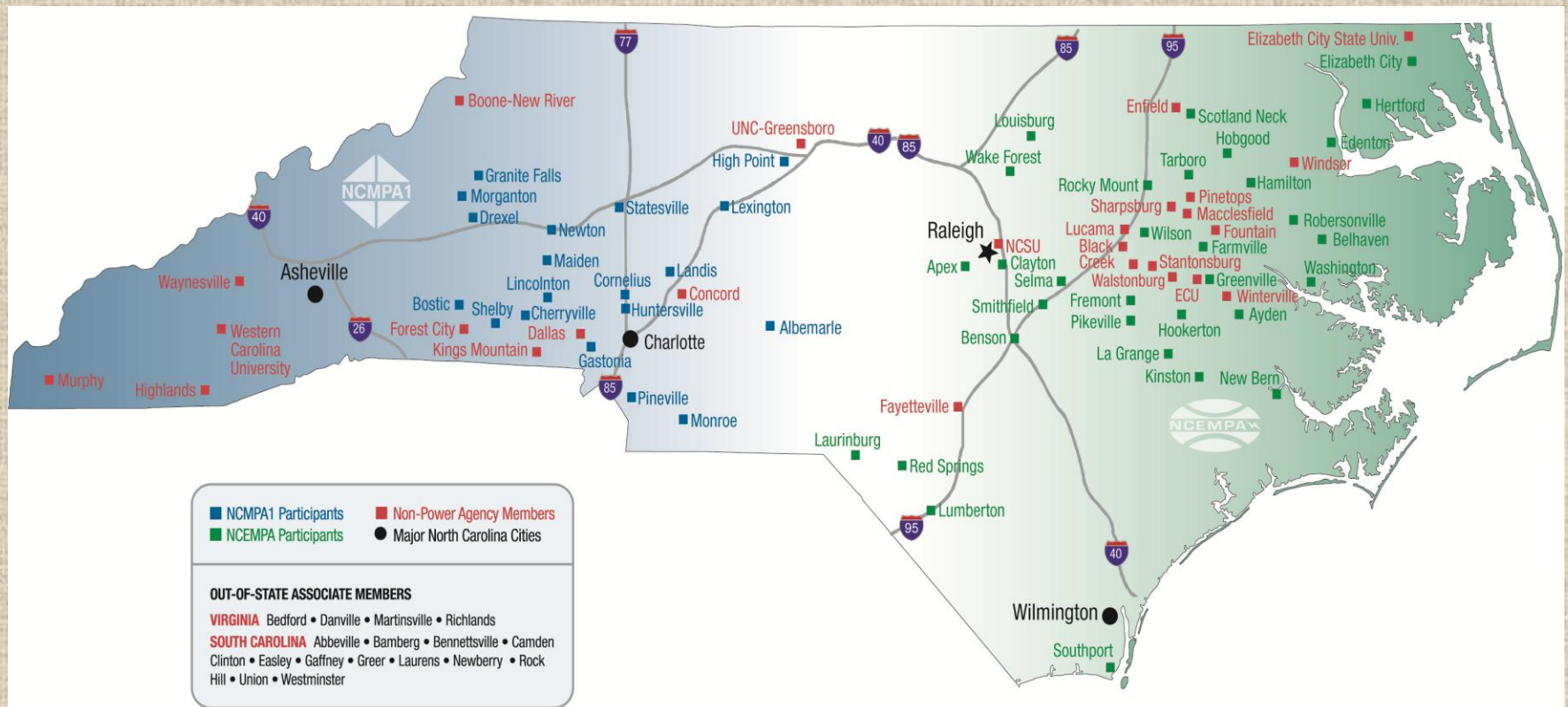
Mike Mozingo, Key Accounts Manager

ElectriCities of North Carolina
North Carolina Municipal Power
Agency #1

What is ElectriCities?

- Formed in 1967 to serve municipal power providers in North Carolina
- More than 90 members today
- Provides training, marketing assistance, and represents public power at the state legislature

North Carolina's Public Power Communities



What is Power Agency 1?

- Formed in the late 1970s as North Carolina Municipal Power Agency #1
- Purpose was to allow member cities to issue revenue bonds to help Duke build Catawba Nuclear Station and become part owners
- 19 Members in the Piedmont area of NC
- Wholesale power provider for the 19 cities

Senate Bill 3

- Passed by NC legislature in 2007
- Requires state's utilities to invest in more renewable energy sources
- Solar, wind, animal waste, landfill gas, etc.
- Also allows for investment in conservation efforts
- Program is funded by ratepayers

What We Are Doing to Comply

- Buy Renewable Energy Credits
- Building Solar Farm
- Offering rebates for energy efficient heat pumps
- Rebates on Energy Star certified homes
- Rebates on solar thermal installations
- Investing in customers' energy efficiency projects

2009 Results

- Commercial and Industrial Customers
 - \$250,000 total budget
 - 20 projects submitted for approval
 - 9 grants were awarded in 2009

Types of Projects Submitted

- Lighting
- Compressed Air
- Variable Speed Fans
- Dust system improvements
- Energy Management System

Projects Awarded

- All but one were lighting
- One small compressed air award

2009 Results

- Nine awards totaling \$244,587
- Annual kWh savings: 4.6 million
- Average investment per kWh saved: +/- .05

2010

- Authorized to award up to \$400,000 in energy efficiency grants!



What Makes a Good Project?

- Proven technology
- Financially sound
- Measurable savings

Proven Technology

- T- 8 and T-5 Lighting systems
- LED lighting
- Building controls
- Energy efficient motors

The Financial Side

- If it makes financial sense to the customer, it will probably make sense to us!
 - At or near a two-year payback
 - Limit is 50% of the cost of the project

Eligibility

- Facility must receive electric service from a member of the Power Agency
- Facility has an average monthly demand of 250 KW
- 100,000 kWh saved per year minimum

How the Process Works

- Identify an energy efficiency project at customer location
- Customer works with internal staff and/or outside vendor to calculate costs and potential savings
- Describe the project in detail along with financial goals for the project
- Include photos, charts, graphs as necessary to describe project

How the Process Works

- Proposal will be evaluated on its technical merits by a third party engineer
- Financial benefits will be evaluated by Power Agency
- Projects ranked by financial benefit to power agency
- Fund projects until budget is expended

How the Process Works

- Important to remember
 - Projects compete against other projects from 19 other cities
 - Budget is limited
 - Ask for the minimum amount necessary to make the project financially viable for your organization

How the Process Works

- Notification of awards on or about July 1
- Measurement and Verification will take place after installation
- Installation of the project needs to begin in 2010
- Provide detailed invoice information from vendors

Questions on Industrial RFP Program ?



Thank you!

- If you have follow-up questions, feel free to contact me.
- Mike Mozingo, Key Accounts Manager
- 704.201.2228
- mmozilla@electricities.org

For More Information

DOE Industrial Technologies Program (ITP) Utility Partnerships

www.eere.energy.gov/industry/utilities

Sandy Glatt

ITP Project Manager, State and Utility Partnerships

sandy.glatt@go.doe.gov

303.275.4857

American Public Power Association (APPA)

Demonstration of Energy-Efficient Developments (DEED)

www.APPAnet.org/

Michele Suddleson

DEED Project Manager

msuddleson@APPAnet.org

202.467.2960

To receive a flyer describing the remaining webinars in this series or for answers to additional questions, please email Myka Dunkle at mdunkle@bcs-hq.com.

Next 2010 Industrial Utilities Webinar:

Combined Heat and Power (CHP) Case Studies

June 9, 2010: 12PM to 2PM EDT