



# Innovative Energy Management Workshop Making the Most of Financial Incentives

### John Owens Director Customer Renewable Generation and Energy Efficiency

October 5, 2010



# WHY ENERGY EFFICIENCY?

- Environment
  - Environmental Friendly
  - Energy Performance
- <u>People</u>
  - Savings Jobs
  - Creating Jobs
- Dollars
  - Financial Performance
  - Capital Expenditures

- Stewardship
  - Corporate sustainability initiatives
  - LEED initiatives (existing & new bldgs)
- <u>Comfort</u>
  - Space conditioning
  - Quality of work environment
- Savings
  - Process improvement
  - Productivity improvement



## DEMAND SIDE ACTION PLAN BUDGET

	2010	2011	2012	Total
NV Energy South	\$ 64.4 M	\$117 M	\$ 88.3 M	\$269.7 M
NV Energy North	\$ 12 M	\$12 M	\$ 12 M	\$ 36 M



# DEMAND SIDE ACTION PLAN BUDGET

- NV Energy South three year budget of \$270 M includes:
  - Demand Response \$64 M
  - Demand Side Programs \$111 M
    - Commercial Retrofit \$27 M
  - Advanced Service Delivery \$95 M
- NV Energy North three year budget of \$102 M includes:
  - Demand Response \$4 M
  - Demand Side Programs \$32 M
    - Commercial Retrofit \$12 M
  - Advanced Service Delivery \$66 M



## SOUTHERN NEVADA EXAMPLES

## **GENERAL SERVICE**

- 300 KW or higher Demand
- Available Utility Voltages
  - Secondary Service from NVE's transformer
  - Primary Service from NVE's substation
  - Transmission Service from NVE's transmission to customer owned substation
- Time of use periods
  - Summer June 1<sup>st</sup> through September 30<sup>th</sup>
    - o On-Peak 1PM to 7 PM
    - o Mid Peak 10 AM to 1PM and 7PM to 10 AM
    - o Off- Peak 10 PM to 10 AM
  - Winter October 1<sup>st</sup> through May 31st



## RATES

### LARGE GENERAL SERVICE – Water Pumping

- Interruptible Rate
- 300 KW or higher Demand
- This Rate Schedule allows the utility to ask the customer to curtail electricity in exchange to reduced demand charges.
- Available Utility Voltages
  - Secondary Service from NVE's transformer
  - Primary Service from NVE's substation
  - Transmission Service from NVE's transmission to customer owned substation
- Time of use periods
  - Summer June 1<sup>st</sup> through September 30<sup>th</sup>
    - o On-Peak 1PM to 7 PM
    - o Mid Peak 10 AM to 1PM and 7PM to 10 AM
    - o Off- Peak 10 PM to 10 AM
  - Winter October 1<sup>st</sup> through May 31st





### **DISTRIBUTION-ONLY SERVICE RIDER**

- Open Access
- Applicable for Eligible Customers to utilize NV Energy's transmission systems (& distribution wires) to deliver the customer's energy from a supplier other than NV Energy.



- The Sure Bet Energy Efficiency Program (Sure Bet) is available to existing or new nonresidential qualifying commercial applicants within the utility's northern and southern service territories.
- This program offers financial cash incentives for the installation of qualifying electric energy-efficiency measures.



# 2010 SURE BET PROGRAM ELIGIBILITY

## Customer Eligibility

- Current non-residential customers of NV Energy
- > At least one meter per location on a commercial rate schedule

## Project Eligibility

- Projects must involve capital improvement
- Projects must result in permanent energy (measured in kWh) savings due to an efficiency improvement
- Project kWh savings must be sustainable for five (5) years
  - Exception: Screw in CFLs
- Changes in operational management and/or maintenance practices are not eligible for an incentive
- Projects that involve fuel switching (solar, wind, cogeneration, electric to gas transitions) are not eligible



# SURE BET PROGRAM BENEFITS

- Cash incentives to help reduce initial costs
- Technical Assistance
  - Assessing electrical savings opportunities
  - Facilitating project implementation
- Quality Assurance
  - Savings verification and review
  - Pre- and post-installation inspections
- Helps customers achieve cost reductions in their electric bill



# MEASURES THAT ARE APPLICABLE TO WATER TREATMENT FACILITIES

- Lighting and/or lighting controls for the building
- HVAC and/or HVAC controls for the building
- Premium efficiency motors for pump stations
- VFDs on the pump motors
- Controls for pump stations for improved operations/pump sequencing



## **Example SURE BET Project**

- The Clark County water Reclamation District designed and constructed the Primary Effluent Pump Station III (PEPS) this new facility was designed to replace the old Influent Pump Station (IPS). New Vertical turbine pumps replaced the five 15 year old Archimedes Screw Pumps. The new vertical turbine pumps are a combination of constant speed and variable frequency drive units. Flows to the plant range typically from 25 to 110 MGD. Because of the large fluctuation of flow, the VFD pumps were chosen to optimize performance and power savings. This pump station is in operation 8760 hours per year and is never taken out of service.
- After comparing the historical data from the Archimedes Screw pumps and comparing it to the new Primary Effluent Pump Station III (PEPS) data it was determined that the overall efficiency saving that was achieved was approximately 10% this equates to approximately 1,542,000 in kWh saving annually.
- After speaking with a representative from the Clark County water Reclamation District regarding the this project and reviewing the project scope it was determined that this project would qualify for the program. Surebet received the initial application in March 2010 and the new Primary Effluent Pump Station III (PEPS) was completed and online March 12, 2010.



# 2010 PROGRAM EFFECTIVE DATES

- Projects must be installed between 1/1/2010 and 11/15/2010
- All Pre-Notification Applications must be postmarked or date-stamped prior to 11/1/2010
- All Final Applications must be postmarked or date stamped prior to 12/1/2010
- Final Applications must be submitted within 60 days of project completion



# **RETROFIT INCENTIVE TIERS & LIMITS**

- Incentive funding is distributed on a first-come, first-served basis.
- Incentives are tiered as follows
  - Per customer or client Tax ID number
  - Per calendar year
  - Keep in mind: Other contractors may have already submitted a qualifying project under the client's Tax ID number
- Incentives cannot exceed 50 % of the total project contract value.

Tier	Low End of Tier	Upper End of Tier	Percentage Paid per Tier
1	\$0	\$100,000	100 %
2	\$100,001	\$500,000	50 %
3	\$500,001	\$1,000,000	20 %
4	\$1,000,001	Up	10%



# **RETROFIT INCENTIVE TIERS & LIMITS**

#### HOW DO I APPLY TIERS AND LIMITS?

- Calculate Incentive
- Apply 50 % of Project Cost Limit
- Apply Tiers
- Determine Final Incentive

#### Example No. 1

Calculated Incentive	\$120,000
Total Project Cost	\$350,000
Calculated Incentive	\$120,000
Apply 50 % Project Cost Limit	N/A because 50 % of \$350,000 = \$175,000
Continue @ Calculated Incentive	\$120,000
Apply Tiers	Tier 1 – 100 % of \$100,000 = \$100,000
	Tier 2 – 50 % \$20,000 = \$10,000
Total Incentive Paid	\$110,000



# **RETROFIT INCENTIVE TIERS & LIMITS**

#### HOW DO I APPLY TIERS AND LIMITS?

- Calculate Incentive
- Apply 50 % of Project Cost Limit
- Apply Tiers
- Determine Final Incentive

#### Example No. 2

Calculated Incentive	\$160,000
Total Project Cost	\$250,000
Calculated Incentive	\$160,000
Apply 50 % Project Cost Limit	50 % of \$250,000 = \$125,000
Continue @ Limited Incentive	\$125,000
Apply Tiers	Tier 1 – 100 % of \$100,000 = \$100,000
	Tier 2 – 50 % \$25,000 = \$12,500
Total Incentive Paid	\$112,500



- Step 1 Have a scope of work
- Step 2 Review application form to determine if the measure qualify for Prescriptive or Custom Incentives (Application Download: <u>www.nvenergy.com/surebet</u>)
- Step 3 Send in an application along with required supporting documentation (or Contact Sure Bet Program for clarification and technical assistance)
- Step 4 Application under Sure Bet Review
- Step 5 Project Pre-Approval
- Step 6 Project Installation
- Step 7 Send in Final Application along with required supporting documentation upon project completion



## **Questions?**

- Q&A
- Additional Resources
  - 800-342-6335 to speak with a knowledgeable Sure Bet team member
  - NVEnergy.com for information on residential programs

