

ENERGYFIT NEVADA ECONOMIC BENEFITS

Presented at

S O U T H E R N
NEVADA
CONVENE FOR GREEN

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Nevada Energy Efficiency Investment Analysis

Study Purpose

1

- Document various energy efficiency industry trends

2

- Outline social, economic & environmental opportunities associated w/ various energy efficiency initiatives

3

- Quantify economic benefits that could potentially be realized in NV as a result of proposed energy efficiency financing programs



Overview of the Proposed Energy Efficiency Financial (EEF) Programs

2 types of EEF programs were analyzed

- ***Property Assessed Clean Energy program (PACE):***
 - Method of securing a loan for energy improvements
 - Lien placed on the property that is superior to a mortgage & is at parity with the tax lien.
 - Minimum issuance amount is most likely \$1 – \$2 million due to efficiencies regarding issuance costs.

- ***Nevada State Subsidy Options programs:***
 - The total capital needed to finance approximately 1,000 loans is \$20 million (with an average loan amount of \$20,000)
 - Option 1: 10% Subordinate Capital
 - Option 2: 10% Loan Loss Reserve
 - Option 3: Interest Rate Buy-Down



Economic Benefits of the Proposed EFF Programs to State of Nevada

Economic Benefits Methodology

3 measures of economic benefits

Economic benefits are the positive impacts on the level of economic activity in the local economy—measured in terms of increased spending/output, employment & labor compensation.

- Spending - dollar value of the economic activity produced by an industry (referred to as “output”)
- Employment - number of jobs generated (i.e., created or supported) & includes part-time, full-time & temporary jobs
- Labor Compensation - gross payroll cost of employees paid by employers (i.e., wage & salary, benefits & employer-paid payroll taxes (total payroll costs including employee benefits))

Economic Benefits Methodology (cont'd)

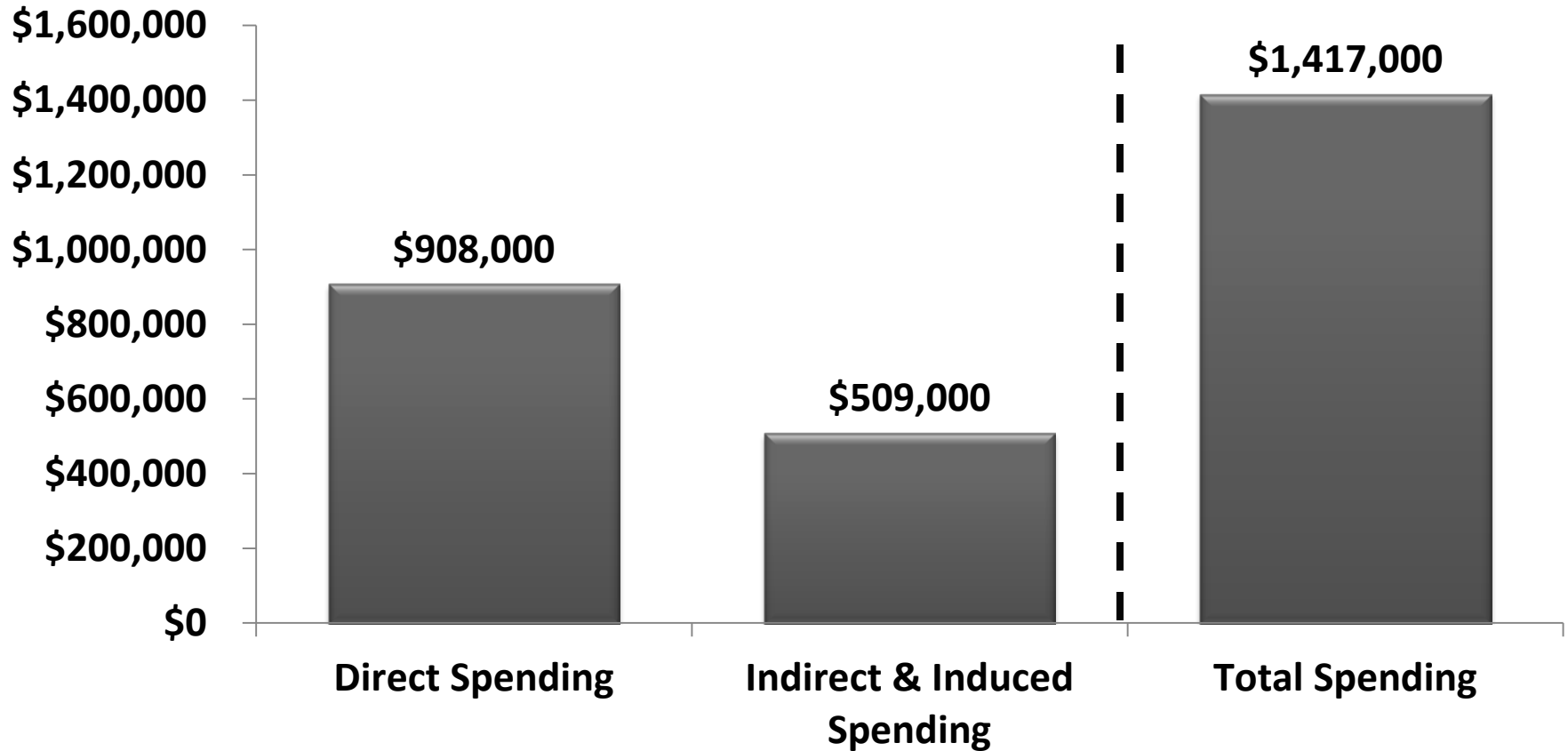
3 levels of economic benefits

- ❑ **Direct benefits** include benefits from initial investments in the proposed financing programs (benefits from the local purchase of construction materials, construction jobs created & construction payroll/compensation – a one-time benefit).
- ❑ **Indirect benefits** are the wholesale purchases of goods & services resulting from the initial direct spending attracted by the proposed financing programs. The portion of these purchases made within the state economy is counted as an indirect economic benefit. Those inter-industry purchases associated with the investment into the proposed financing programs are one-time indirect benefits.
- ❑ **Induced benefits** are the result of purchases made by employees with earned income received from the directly & indirectly impacted organizations & businesses. As a new engineer for an energy efficiency project purchases goods & services for his/her household, the spending cycles through the economy & induces additional economic activity.

The economic benefits analyses developed were guided by the following questions:

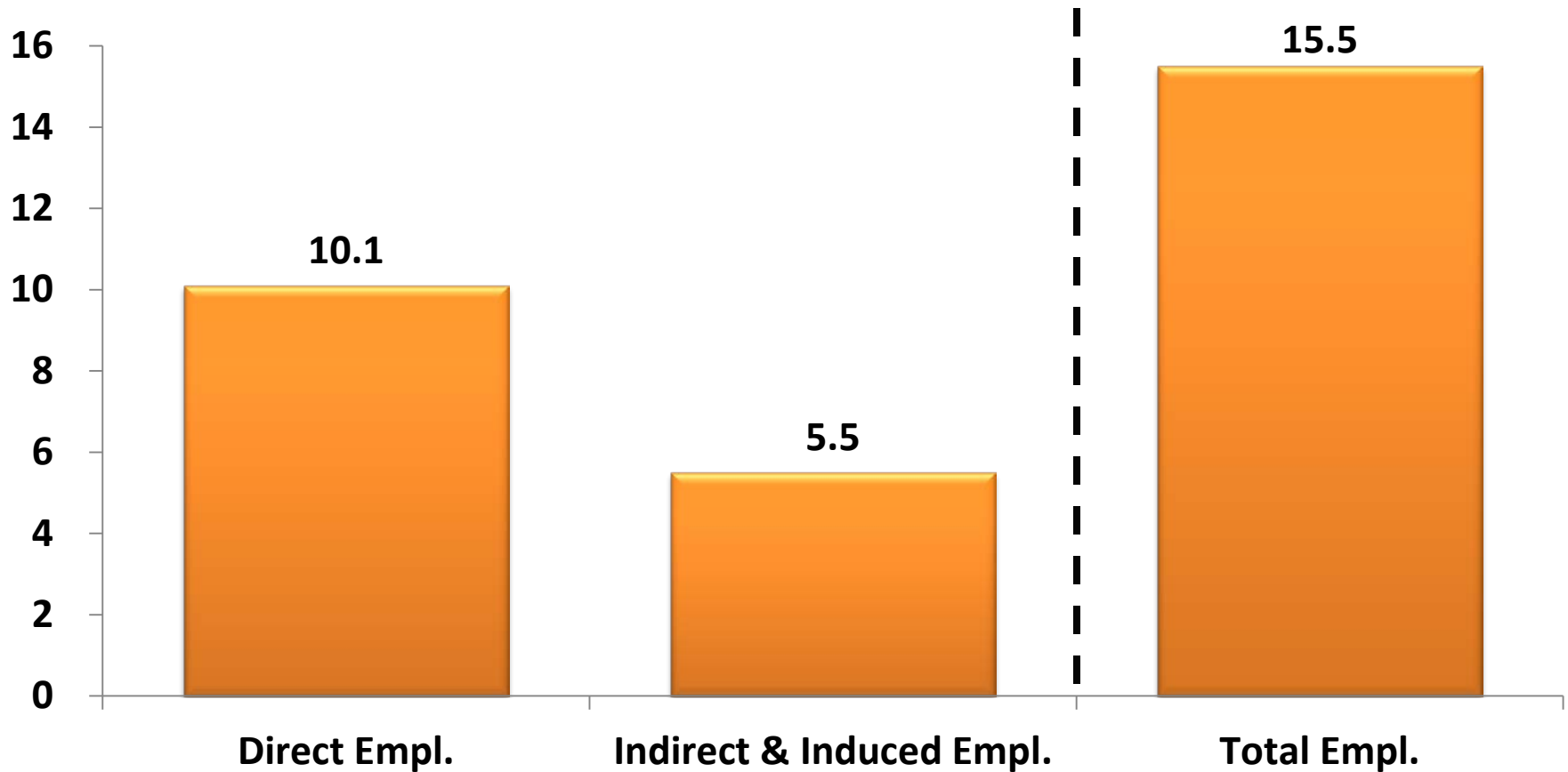
- If an additional \$1 million is spent locally on energy efficiency programs (e.g., building retrofits), how will businesses utilize that money to actually complete the retrofit project?
- How much of the \$1 million will they spend on hiring workers, & how much will they spend on non-labor inputs, including materials, energy costs & renting office space?
- When businesses spend on non-labor inputs, what are the employment effects through giving orders to suppliers, such as trucking companies, parts producers, etc.?

Economic Benefits per \$1M Investment in EEF Programs, *Spending*



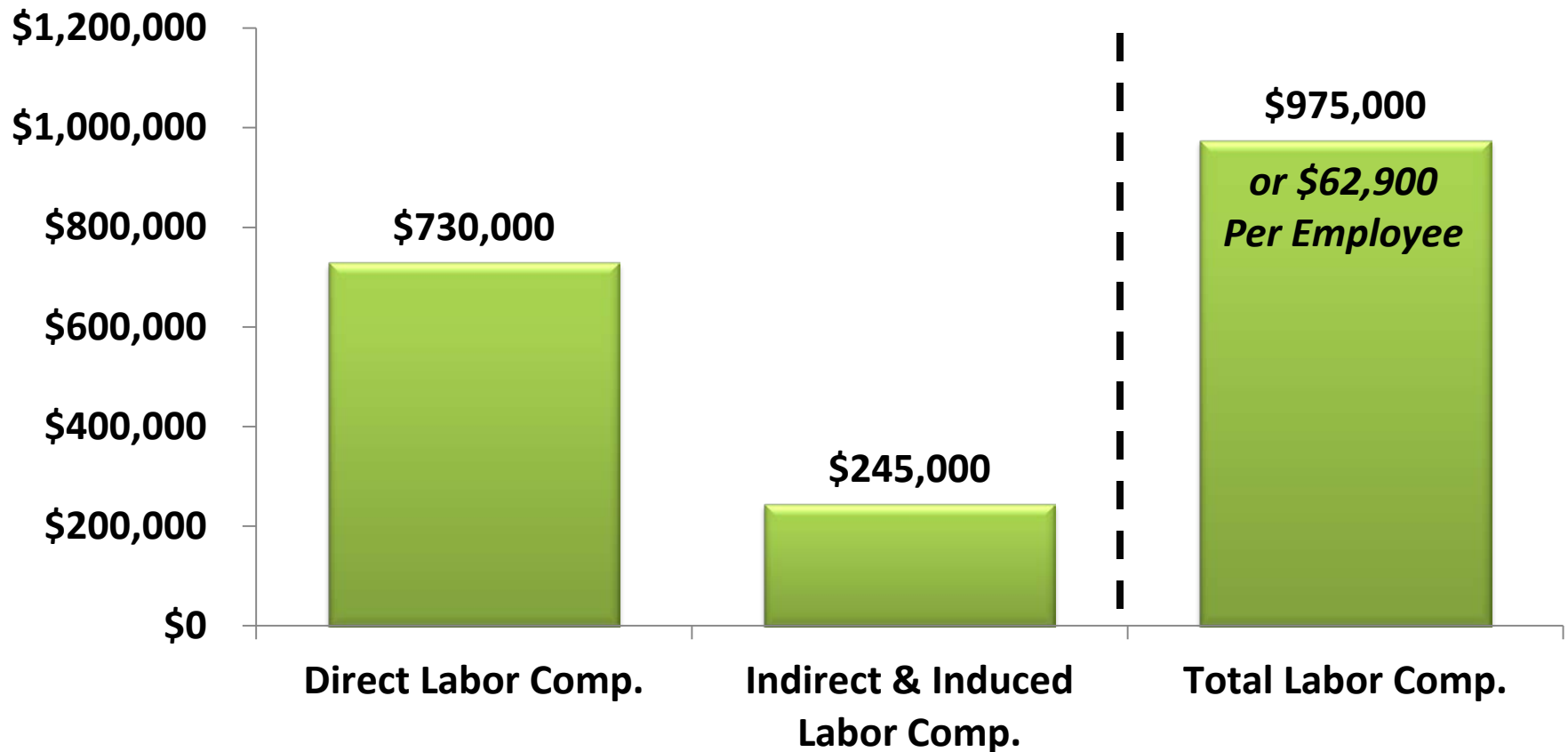
Note: Total may not sum exactly due to rounding.

Economic Benefits per \$1M Investment in EEF Programs (cont'd) *Employment (Full- & Part-time)*



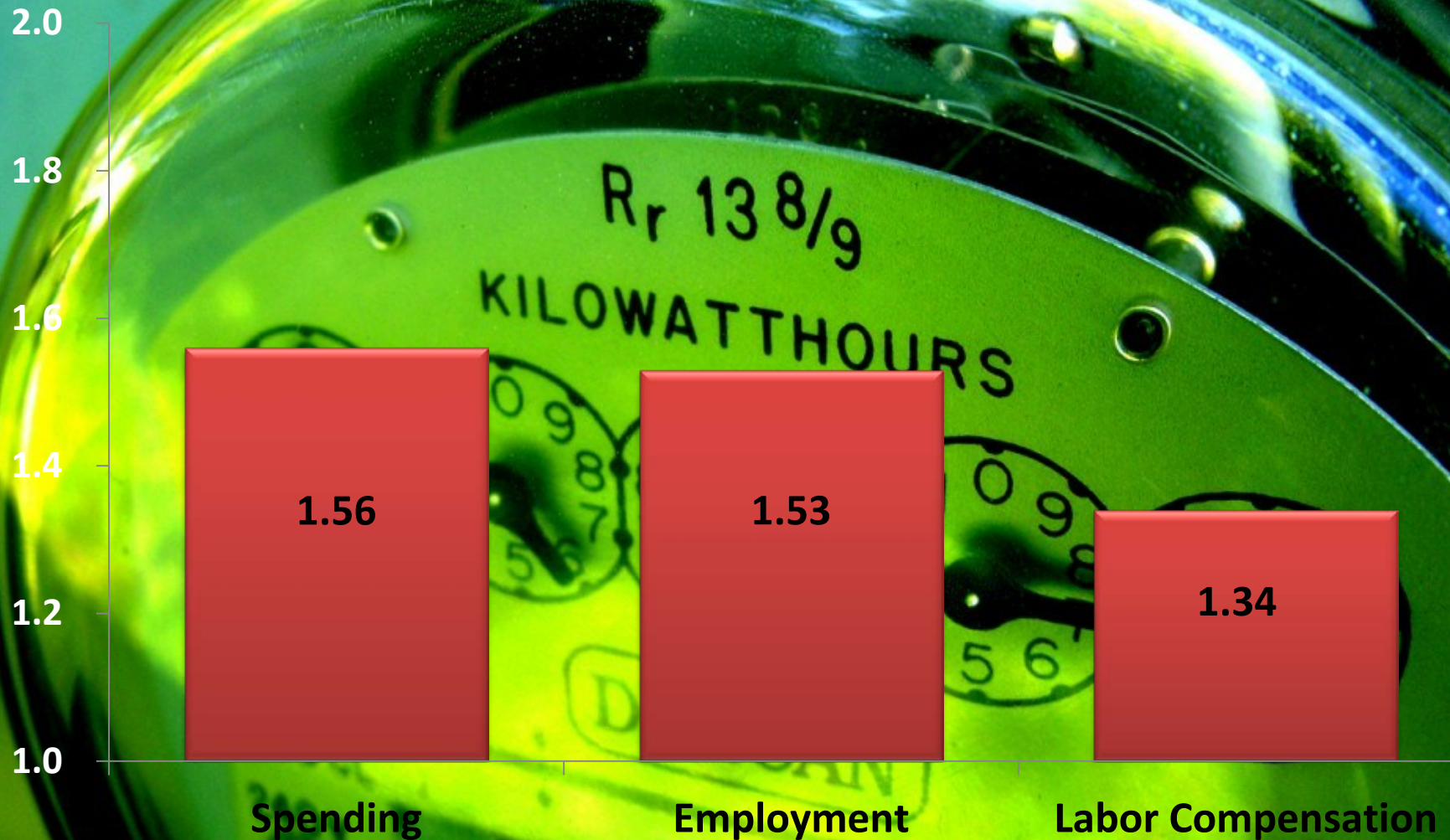
Note: Total may not sum exactly due to rounding.

Economic Benefits per \$1M Investment in EEF Programs (cont'd) *Labor Compensation*



Note: Total may not sum exactly due to rounding.

Spending, Employment & Labor Compensation Multipliers



Potential benefit of \$20M investment in EEF programs to State of Nevada?

Scenarios examined

- ❑ Energy Efficiency Improvements compared with No Energy Efficiency Improvements (business as usual).
- ❑ **Short-term** employment benefits: 1st year investment of \$20M.
- ❑ **Long-term** employment benefits: Effects of the initial investment over 20 years (in 2013 \$).

Potential benefit of \$20M investment in EEF programs? Energy Efficiency Improvements vs. No Energy Efficiency Improvements

Short-Term Employment Economic Benefits

1st Year Investment: \$20 Million

Energy Efficiency Improvements

15.5 Jobs per \$1M x \$20M

= 310 Gross Direct, Indirect & Induced Jobs

No Energy Efficiency Improvements

11 Jobs per \$1M x \$20M

= 220 Gross Direct, Indirect & Induced Jobs

RESULT: 90 Net Jobs ($310 - 220 = 90$) **41% Diff.**

Potential benefit of \$20M investment in EEF programs? Energy Efficiency Improvements vs. No Energy Efficiency Improvements

Long-Term Employment Economic Benefits

Over 20 Years	
<u>Energy Efficiency Improvements</u>	<u>No Energy Efficiency Improvements</u>
20 Years X \$1M in Savings, Assumed to be Spent in Other Areas X 9 Jobs per \$1M	20 Years X \$1M in Savings, Assumed to be Spent in Other Areas X 5.5 Jobs per \$1M
= 180 Gross Direct, Indirect & Induced Jobs over 20 years	= 110 Gross Direct, Indirect & Induced Jobs over 20 years
RESULT: <u>3.5 Jobs per Year</u> (or 70 Net Jobs, 20 years: 180 – 110 = 70) 64% Diff.	



Concluding Remarks

- ❑ Energy efficiency, for the most part, creates net gains in employment, which extend beyond the jobs that shift among industries.
- ❑ Additional benefits of energy efficiency, e.g., potential increase in home market value due to energy cost savings, electricity savings, & improving air quality.
- ❑ If properly designed & implemented, financing programs for energy efficiency initiatives can be essential to NV's environment, economy & residents.
- ❑ For any efficiency program to reach its potential, it's essential to find support among all key stakeholders who realize that energy efficiency needs to be viewed as a meaningful & significant economic resource.

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