

# Alberta's Carbon Challenge

## THE ROLE OF ENERGY EFFICIENCY

2015 ALBERTA

September 9 – Edmonton

# Climate Summit



**dunsky**  
ENERGY CONSULTING

[www.dunsky.com](http://www.dunsky.com)  
(514) 504-9030 | [info@dunsky.com](mailto:info@dunsky.com)

# DUNSKY OVERVIEW



## CLIENTS (partial list)



## EXPERTISE

- ▶ Energy Efficiency and Demand-Side Management
- ▶ Renewable Energy and Emerging Technologies
- ▶ Greenhouse Gas Reductions

## SERVICES

- ▶ Design and evaluation of programs, plans and policies
- ▶ Strategic and regulatory support
- ▶ Technical support and analysis

## CLIENTELE

- ▶ Utilities
- ▶ Governments
- ▶ Solution Providers
- ▶ Large consumers
- ▶ Non-profits



# WHAT?

## SIX TOOLS TO DELIVER ENHANCED ENERGY EFFICIENCY:

**AWARENESS  
& TRAINING**

**INCENTIVES**

**FINANCING  
MECHANISMS**

ANYONE  
CAN DELIVER

**LEAD BY  
EXAMPLE**

**CODES &  
STANDARDS**

**FISCAL**

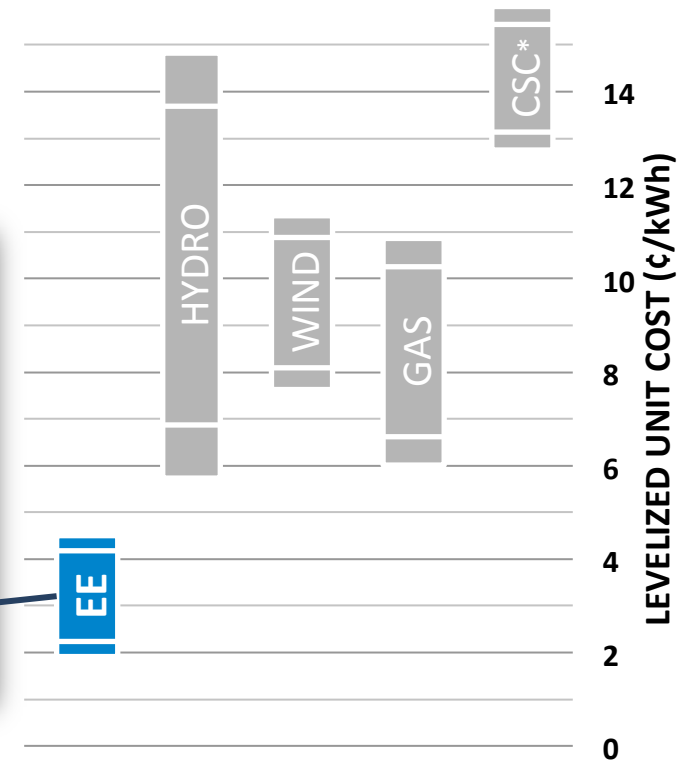
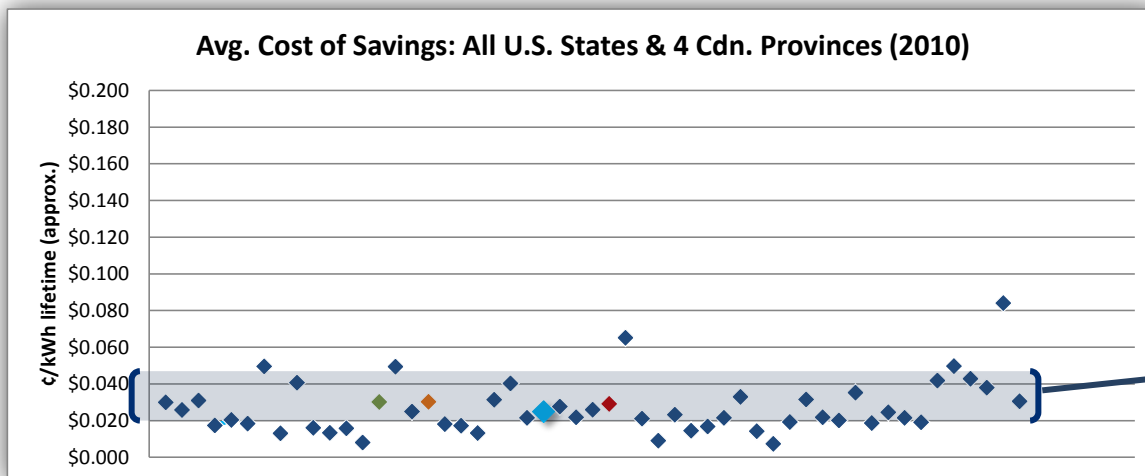
GOVERNMENT  
MUST DELIVER

# WHY EFFICIENCY?



## ✓ LOWEST COST

3-6x cheaper than new supply

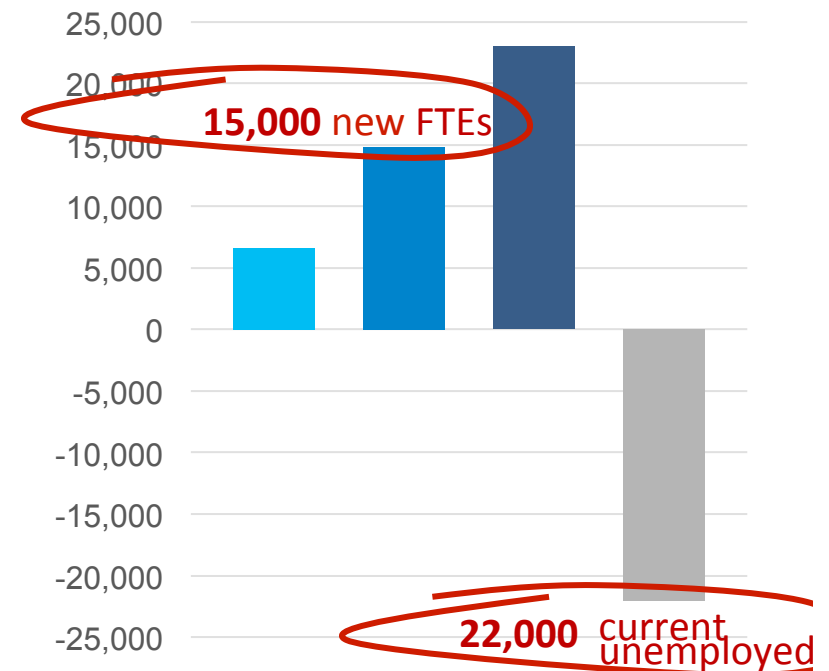


# WHY EFFICIENCY?



- ✓ **LOWEST COST**  
3-6x cheaper than new supply
- ✓ **MOST JOBS**  
~1½-8x more jobs / \$M

Alberta EE Net Employment scenarios



# WHY EFFICIENCY?



- ✓ **LOWEST COST**

3-6x cheaper than new supply

- ✓ **MOST JOBS**

~1½-8x more jobs / \$M

- ✓ **ECONOMIC DEVELOPMENT**

Increases household disposable income (local reinvestment)



# WHY EFFICIENCY?



- ✓ **LOWEST COST**

3-6x cheaper than new supply

- ✓ **MOST JOBS**

~1½-8x more jobs / \$M

- ✓ **ECONOMIC DEVELOPMENT**

**Increases household disposable income** (local reinvestment)

**Improves business competitiveness** (maintain/increase activity)



# WHY EFFICIENCY?



## ✓ **LOWEST COST**

3-6x cheaper than new supply

## ✓ **MOST JOBS**

~1½-8x more jobs / \$M

## ✓ **ECONOMIC DEVELOPMENT**

Increases household disposable income (local reinvestment)

Improves business competitiveness (maintain/increase activity)

## ✓ **CLIMATE**

▶ **Reduces fuel use / accelerates phase-out**

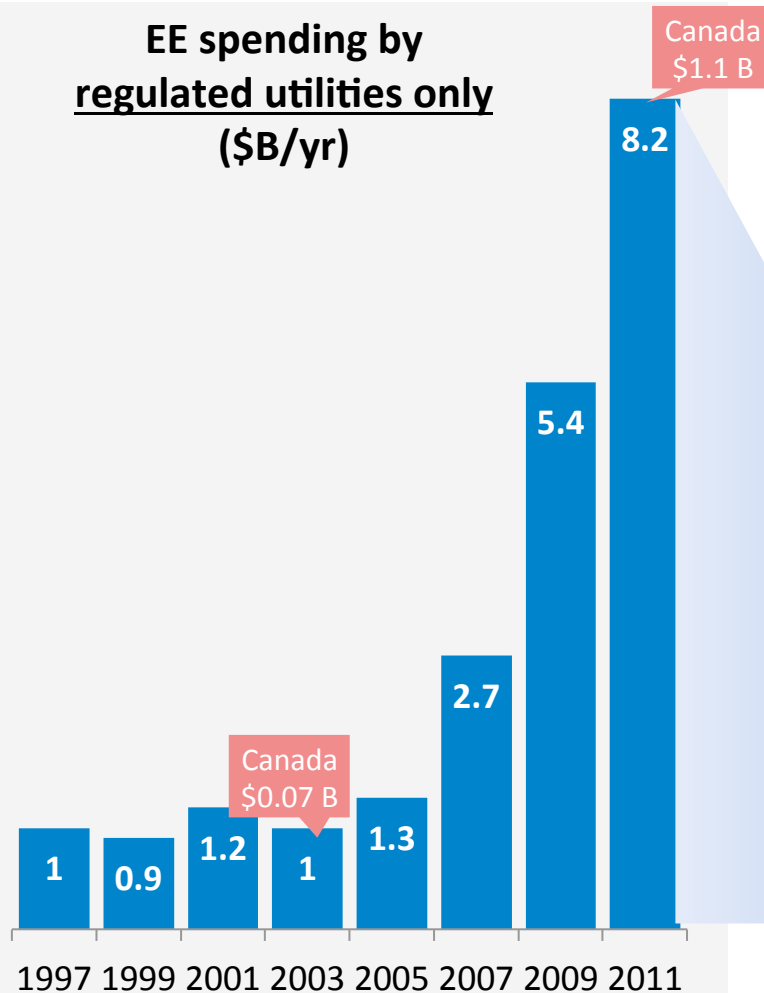




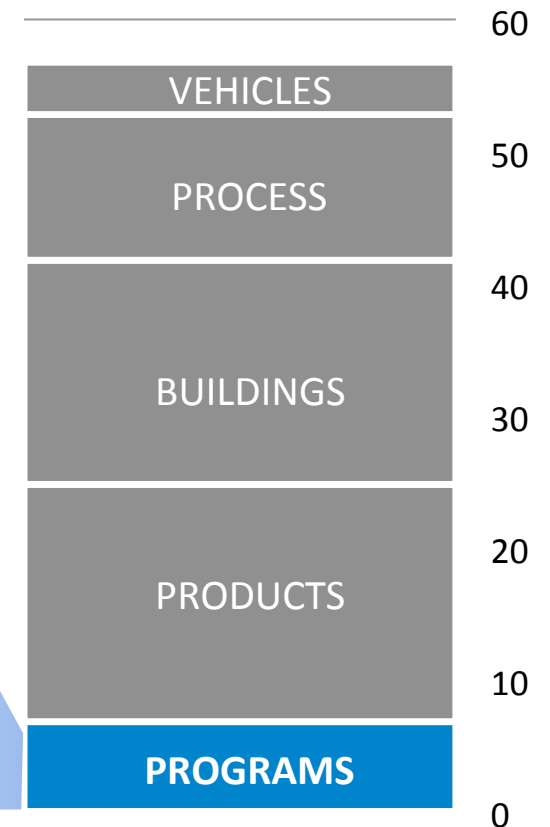
# GROWTH AREA (U.S. data here)



**EE spending by regulated utilities only (\$B/yr)**



**Total EE investments (\$B/yr)**



# HOW MUCH? (elsewhere)



Bottom-up studies find *cost-effective*, **ACHIEVABLE SAVINGS** OF ~1.5%-3.0%/yr

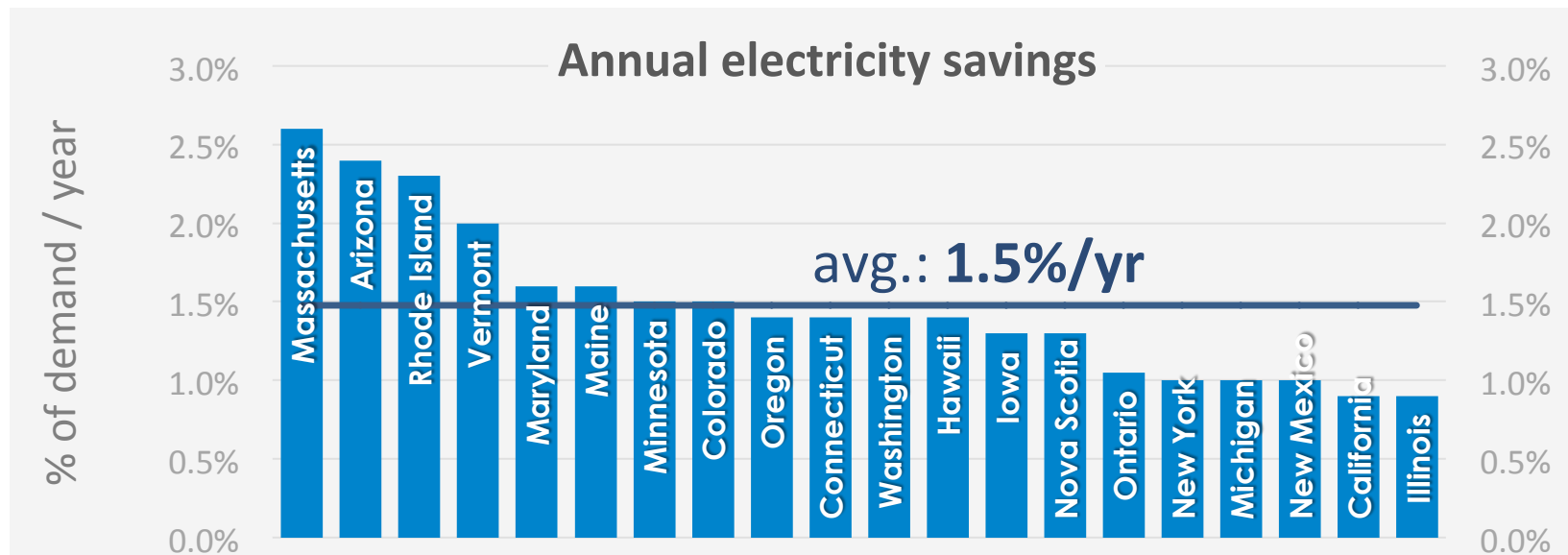
15-30% over 10 yrs



# HOW MUCH?



**SERIOUS REGIONS ACHIEVE 1.0-2.5%/yr (10-25% over 10yrs)**



TYPICALLY:

- ▶ **Utilities fund** & often deliver programs
- ▶ **Performance frameworks** require 3<sup>rd</sup>-party evaluation

# ALBERTA?



- One scenario: a framework to drive programs and activities similar to N.A. leaders (1.5% elec, 1.3% oil, 0.75% gas)

**CO<sub>2</sub>: ↓14.4 Mt/yr**  
(6% of AB emissions)

**GDP: ↑\$2.9B/yr**  
(\$41B over lifetime)

**JOBS: ↑14,800/yr**  
(193,000 p-y over lifetime)

# QUESTIONS?

**PHILIPPE DUNSKY**  
**DUNSKY ENERGY CONSULTING**

**(514) 504 9030 EXT. 22**  
**philippe@dunsky.com**  
**[www.dunsky.com](http://www.dunsky.com)**