

How to Get Started – Colorado Governor's Energy Office (GEO) Overview

Moderator: Gary Berngard

Panelists: Jeff Lyng

Joan Gregerson



Governor's
Energy Office





AMBITION

THE JOURNEY OF A THOUSAND MILES SOMETIMES ENDS VERY, VERY BADLY.

www.despair.com

Start with a plan (energy efficiency, renewable energy, indoor environments, sustainability)

Leverage internal and external resources (e.g. State Energy office, ESCo's, Peers)





CONSULTING

IF YOU'RE NOT A PART OF THE SOLUTION,
THERE'S GOOD MONEY TO BE MADE IN PROLONGING THE PROBLEM.

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**Unimplemented studies on the shelf should be
your worst nightmare (they're ours!)**...

Getting started with performance contracting



- ❑ In CO & WY
 1. Negotiate with a pre-qualified ESCo with assistance from Energy Office, or
 2. Do an informal solicitation to pre-qualified ESCo's with assistance from Energy Office

Footnote for Colorado – State agencies must follow informal competitive process

- ❑ Get decision maker support & opinion of counsel early in process



Governor's Energy Office

GEO Energy Performance Contracting Program Greening Facilities in the New Energy Economy May 1, 2008

Jeff Lyng, Commercial Building and Solar Program Manager, GEO

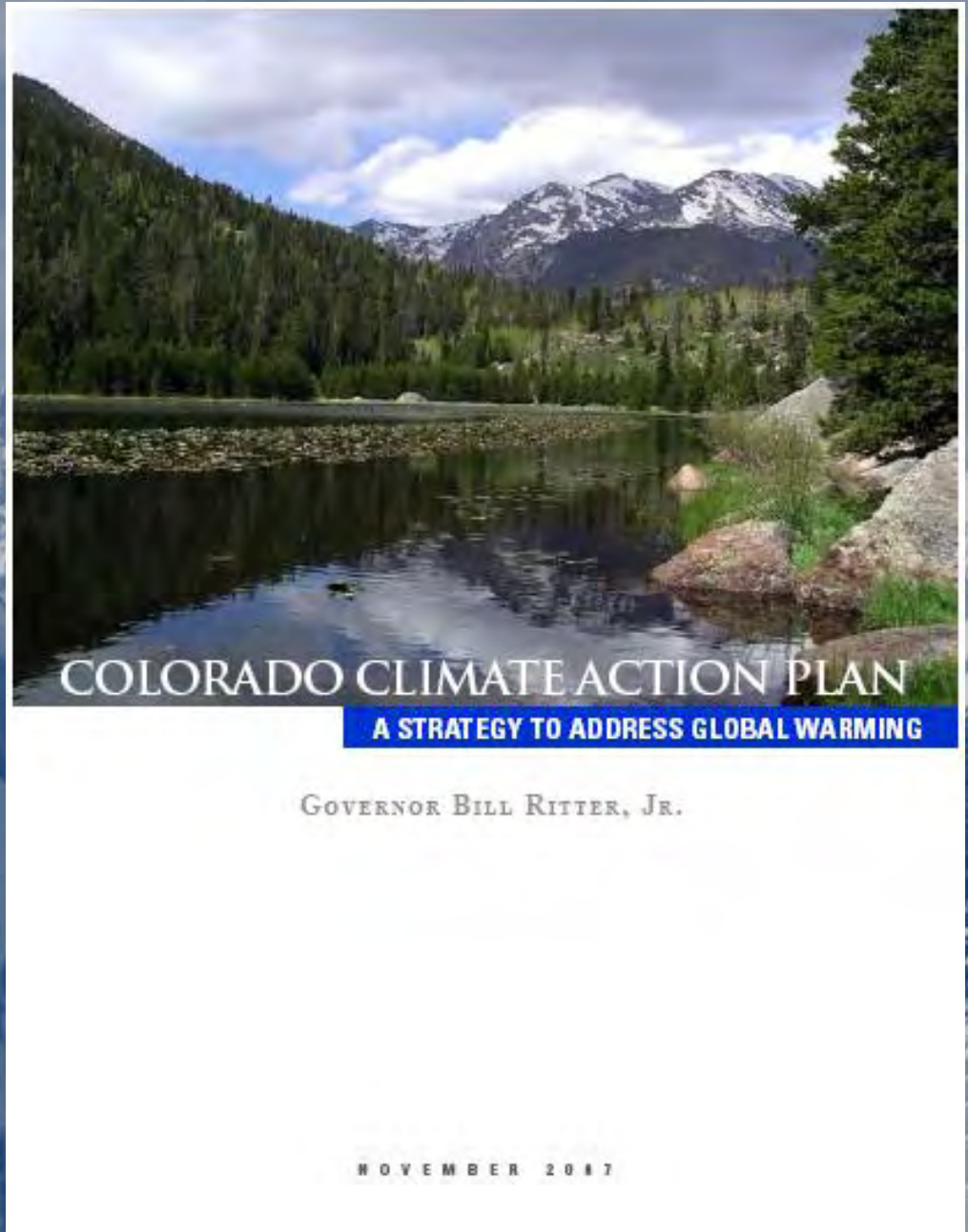
Trident Energy Services, Inc.; Consultants to GEO

John Canfield, Owner/President

Joan Gregerson, Associate/Engineer

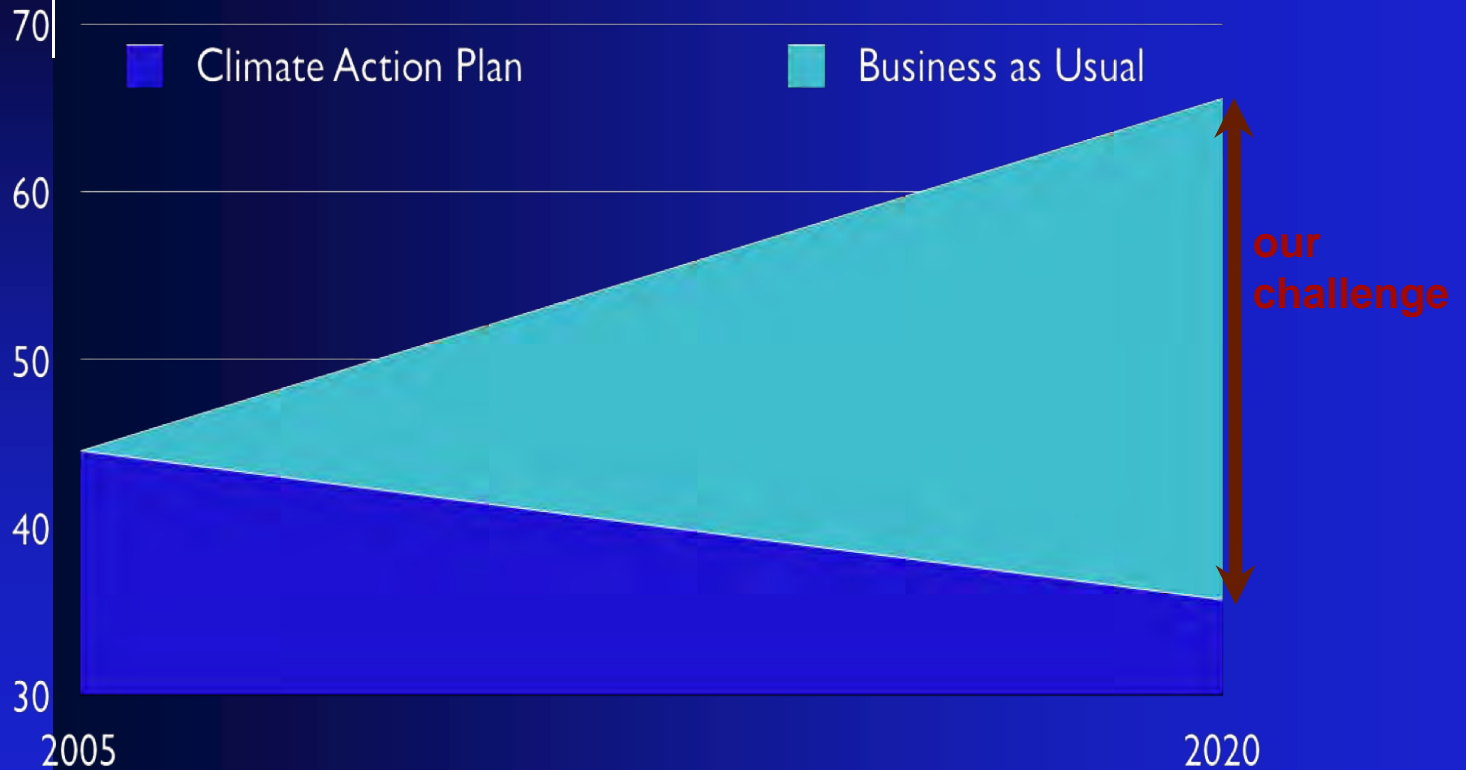
"The Mission of the Governor's Energy Office is to lead Colorado to a New Energy Economy through energy efficiency, renewable and clean energy resources"

**20% Reduction in
Greenhouse gas
emissions from 2005
baseline by 2020.**





• What's the goal?



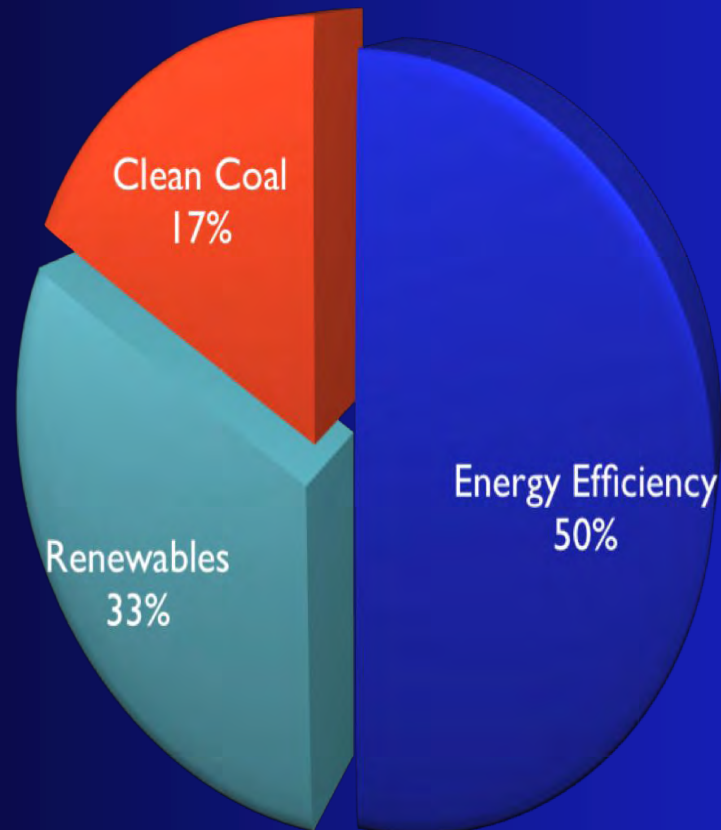


What's the goal?

	As Modeled	MMTCO ₂
2005	48,353 GWh	44.53
2020 Business as Usual	69,008 GWh	63.56
20% below 2005		35.63
Savings needed by 2020		27.94
50% of 2020 Goal		13.97

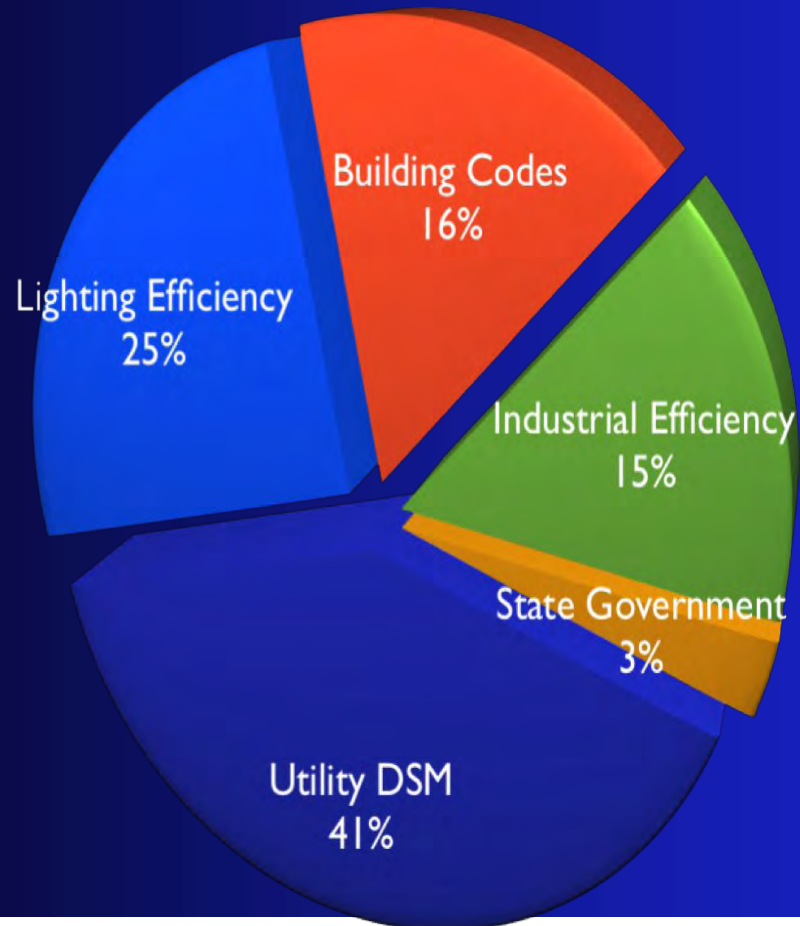


- **20% reduction in CO₂ emissions from the utility sector by 2020**

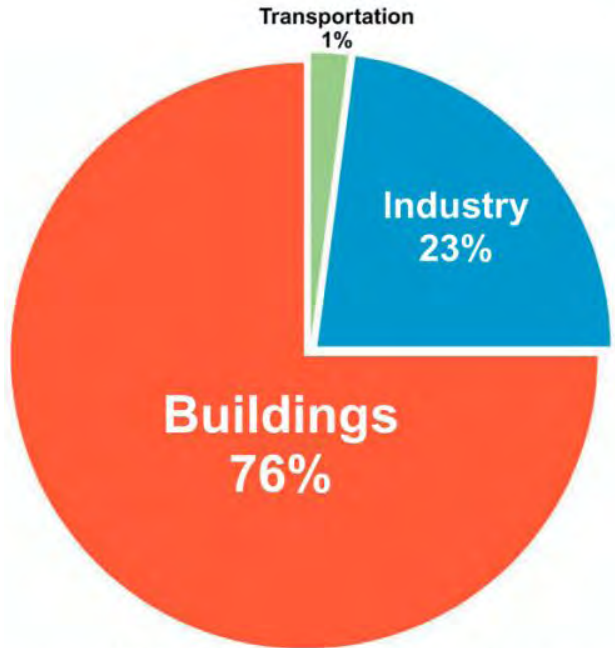




- 50% of utility sector CO₂ reductions will be from efficiency

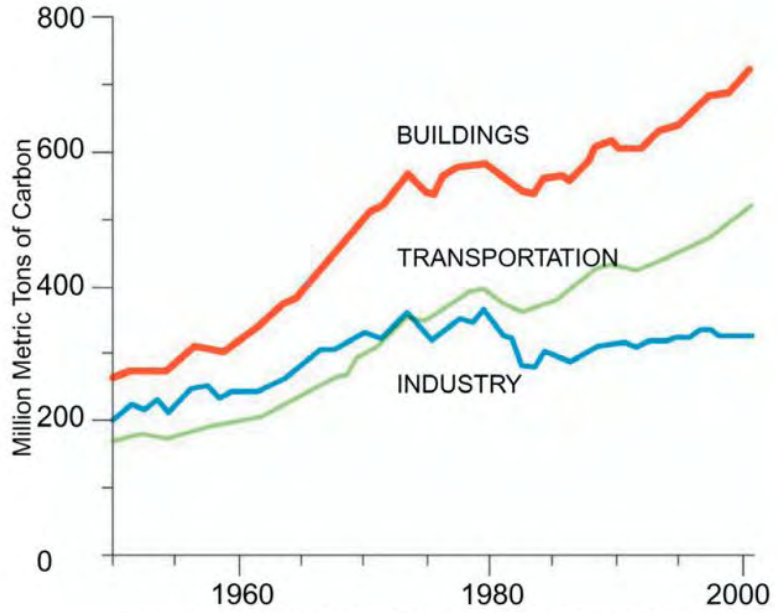


Why Buildings?



U.S. Energy Consumption

76% of all power plant generated electricity is used just to operate buildings.



U.S. CO2 EMISSIONS BY SECTOR

Source: U.S. Energy Information Administration statistics

Buildings Account For Half Of All Greenhouse Gas Emissions.

Greening Government Exec. Order

State Facility Management

- By June 30, 2012
 - ▣ Reduce **energy** consumption in state facilities by 20%
 - ▣ Reduce **water** consumption by 10% from SFY 2005-06 baseline.
 - ▣ 5,600 state buildings
 - 63 million s.f.
 - 517 leased spaces
 - ▣ \$154 million annual utility budget
 - ▣ State Utility Bill Management System

XcelEnergy™ PUBLIC SERVICE COMPANY OF COLORADO
 P O BOX 840
 DENVER, CO, 80201
 (800) 895-4999
 Page 1 of 2

Customer Name	Service Address	Due Date	Account No.	Amount Due
JOHN D'ANGELO	780 HERMES CR LAFAYETTE, CO 80026-1121	Mar 22, 2005	53-3818222-4	\$209.80

Account Activity		Date of Bill	Previous Balance	Amount
Date of Bill	Mar 5, 2005	0	\$105.65	
Number of Payments Received	0	Number of Days in Billing Period	Total Amount of Payments	\$10.00
Statement Number	19247448	27	Balance Forward	\$105.65
Premise Number	301163716		+ Current Bill	\$104.15
			Current Balance	\$209.80

Electric Service - Account Summary		Invoice Number	Residential General	Amount
Invoice Number	0034557371	000001072234		\$31.96
Meter No.	000001072234		GRSA	\$0.64
Rate	R Residential General		Incentive Cost Adj	\$0.87
Current Reading	77459 03/02/2005		Air Quality Imp	\$0.48
Previous Reading	77042 02/03/2005		Elec Commodity Adj	\$5.89
Kilowatt-Hours Used	416		Franchise Fee	\$1.19
			Sales Tax	\$1.43
			Subtotal	\$42.46

Gas Service - Account Summary		Invoice Number	Residential Distribution	Amount
Invoice Number	0013710470	00000648478		\$6.12
Meter No.	00000648478		Interstate Pipeline	\$4.55
Rate	RG-1 Residential		Natural Gas - Feb	\$36.03
Current Reading	8639 02/02/2005		Natural Gas - Mar	\$5.02
Previous Reading	8622 02/03/2005		Metering & Billing	\$8.54
Measure Usage	77		Franchise Fee	\$1.74
Therm Multiplier	0.8551		Sales Tax	\$2.09
Therms Used	66.00		Subtotal	\$61.69

Comparison Information		Billing Period	Kwh Usage/Month	Therm Usage	Avg. Daily Temp.
Gas	\$51.69 per month	This Year	416	66	38°
Electric	\$42.46 per month	Last Year	0	0	32°

Customer Messages
 Just a reminder about the past due amount on your account. If you have already sent your payment, thank you. Otherwise, please call 1-800-895-4999 to confirm the status of your account.
 We prorate your charges, and allocate the gas cost adjustment by calendar month. If you're billed mid-month, your billing period overlaps two calendar months. You'll see part of this month's gas cost adjustment charges on both this month's invoice, and the rest on next month's invoice as well. If you have any questions, call 1-800-895-4999.

Please remit the address below and remit this payment your payment. Make your check payable to XCEL ENERGY

Account Number	53-3818222-4
Payment Due By	Mar 22, 2005
Amount Enclosed	\$
Amount Due	\$209.80

XCEL ENERGY
 P.O. BOX 9477
 MPLS, MN 55604-9477

AC 01 006821 448258 30 F**C007
 JOHN D'ANGELO
 780 HERMES CR
 LAFAYETTE CO 80026-1121

53032205436162224400000004161500000020980

Energy Performance Contracting Partners (ESCOs)

An energy performance contract is an agreement between the client and an energy service company (ESCO) that allows efficiency upgrades to be paid for with savings achieved through decreased energy consumption and maintenance costs

The GEO will work with K-12 schools, state agencies, higher ed, and cities and counties to navigate the performance contracting process.

To simplify the process, and ensure the highest level of quality the GEO has pre-approved 11 ESCOs to implement performance contracts in Colorado



Governor's
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AMERESCO
Connect to Smarter Energy Solutions



EMC
ENGINEERS, INC.



Honeywell

JOHNSON
CONTROLS

LONG
ENERGY SOLUTIONS



NORESCO

SIEMENS

How is GEO's EPC Program Different?

Working with utility partners

“ESCO shall identify and secure on behalf of the Facility Owner all available generation capacity in the PJM region to be used by the ESCO...”

Ensuring Proper Monitoring and Verification

All ESCOs must continue to submit M&V documentation to the GEO throughout the duration of the contract

Comprehensive support and oversight from the GEO

- Performance Contracting Specialists to help you navigate the PC process
- Technical experts to assess project feasibility and verify energy savings
- Financing advice
- Sample contract documents
- Trainings on energy efficient management practices
- Monitoring and Verification plan consulting

Colorado State and Higher Education Energy Performance Contracting Partners

Departments:

- Personnel and Administration, Capital Complex
- Human Services
- Corrections
- Transportation
- Natural Resources, Colorado State Parks
- Public Health and Environment
- Revenue

Higher Education:

- UC Boulder - Housing
- UC Colorado Springs
- Colorado State University - Fort Collins
- Red Rocks Community College (Lakewood)
- Colorado Northwest Community College (Rangely)
- Trinidad State Junior College
- Mesa State College (Grand Junction)
- Colorado School for the Deaf and Blind
- Colorado School of Mines (Golden)
- Colorado State University – Pueblo
- University of Northern Colorado (Greeley)

City and County

Energy Performance Contracting Partners

- Arapahoe County
- Arvada
- Aspen
- Aurora
- Boulder
- Breckenridge
- Brush
- Castle Rock
- Crested Butte
- Durango
- Eagle County
- Fort Collins
- Frisco
- Gilpin County
- Golden
- Grand Junction
- Jefferson County
- La Plata County
- Lafayette
- Lake County
- Longmont
- Louisville
- Manitou Springs
- Mesa County
- Moffat County
- Montezuma County
- San Juan County
- Silverthorne
- Westminster

K-12

Energy Performance Contracting Partners

- Adams 14
- Arriba-Flagler
- Boulder Valley
- Calhan
- Campo
- Cheraw
- Clear Creek
- Colorado Springs
- DeBeque
- Dolores RE-4A
- Eads
- Eaton
- Elizabeth
- Gilpin County
- Haxtun
- Hayden
- Las Animas
- Manitou Springs
- Mapleton
- Moffat County
- Monte Vista
- Pritchett
- Pueblo 60
- S. Conejos
- Salida R-32
- Sierra Grande
- South Routt
- Springfield
- Stratton
- Walsh
- Weld RE-1

Remember what your Mother told you...



*“You’ve got to eat your energy efficiency
~~energy~~
energy dessert.”*

State of Colorado leading by example...





GEO's Services to Ensure Success

How GEO Provides Guidance

- “Standards for Success”
- Free services for state & local governments
- On-going guidance and support throughout the process

Assistance every step of the way...

GEO Standards for Success for EPC

Step 1: Introductory Stage

- **Make sure EPC is right for you**

GEO: Telephone screening, on-site visit, quantify potential, deliver feasibility study

- **Get the “Go” decision**

GEO: Present to decision makers

You: Sign EPC Facility Owner’s Memorandum of Understanding

GEO Standards for Success for EPC

Step 2: ESCo Selection Stage

- **Set the stage for your project**

GEO: Meet with legal, procurement, facilities staff

- **Competitively select your ESCo**

GEO: Provide list of GEO-approved ESCos. Assist in solicitation.

- **Select the ESCo that's right for you**

GEO: Provide neutral unbiased assistance for evaluation process.

You: Select qualified ESCo.

GEO Standards for Success for EPC

Step 1: Alternative Introductory Stage

- **Make sure EPC is right for you**

ESCo: Develops customer. Introduces EPC.

- **Get the “Go” decision**

ESCo: Engage GEO

You: Sign EPC Facility Owner’s Memorandum of Understanding

GEO Standards for Success for EPC

Step 2: Alternative ESCo Selection Stage

- **Select the ESCo that's right for you**

You: If your procurement policies allow, “sole source” select your ESCo

GEO: Provide neutral unbiased assistance for evaluation process.

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~~11/16/11~~

GEO Standards for Success for EPC

Step 3: Technical Energy Audit Stage

- **Get on the “same page” with your ESCo**

GEO: Meet with you and your ESCo to set intent and expectations

- **Use GEO contract to ensure investment grade audit**

GEO: Provide approved contract, assist in developing terms, and incorporate terms and expectations in contract

You: Enter into Technical Energy Audit Contract

GEO Standards for Success for EPC

Step 3: Technical Energy Audit Stage

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Get ongoing independent reviews during audit

GEO: Provide review, technical and contractual support, review energy and cost calculations

Develop a quality monitoring & verification plan

GEO: Review and help develop the M&V plan, advise on final acceptance of Technical Audi

GEO Standards for Success for EPC

Step 4: Performance Contracting Stage

Use the GEO Energy Performance Contract

GEO: Provide Colo. state-approved model contract

Get trained on the Energy Performance Contract

GEO: Prior to signing, meet with your legal and facilities team to review the general conditions

Develop a contract that will stand the test of time

GEO: Ensure contract meets terms of Audit and meets your technical, financial and legal requirements. Assist in negotiating contract.

GEO Standards for Success for EPC

Step 4: Performance Contracting Stage

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Develop a final measurement & verification plan

GEO: Provide GEO's M&V Guidelines (co-developed with Colorado ESCos), Assist in developing a final M&V plan and incorporate into performance contract.

You: Sign GEO Energy Performance Contract

ESCo will implement installation of all equipment

GEO: Provide ongoing support during construction phase

GEO Standards for Success for EPC

Step 5: Monitoring & Verification Stage

Get independent reviews of ESCo savings reports

GEO: Provide annual independent review of energy savings report.

Get ongoing troubleshooting expertise

GEO: Provide general technical and performance contracting expertise on an on-call basis when questions arise.

GEO Standards for Success for EPC

Guidance every step of the way...

Our Shared Goal

Successful, completed projects

Comprehensive improvements in your facilities:

- Energy efficiency
- Alternative/renewable
- Water efficiency

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How to Begin the Process:

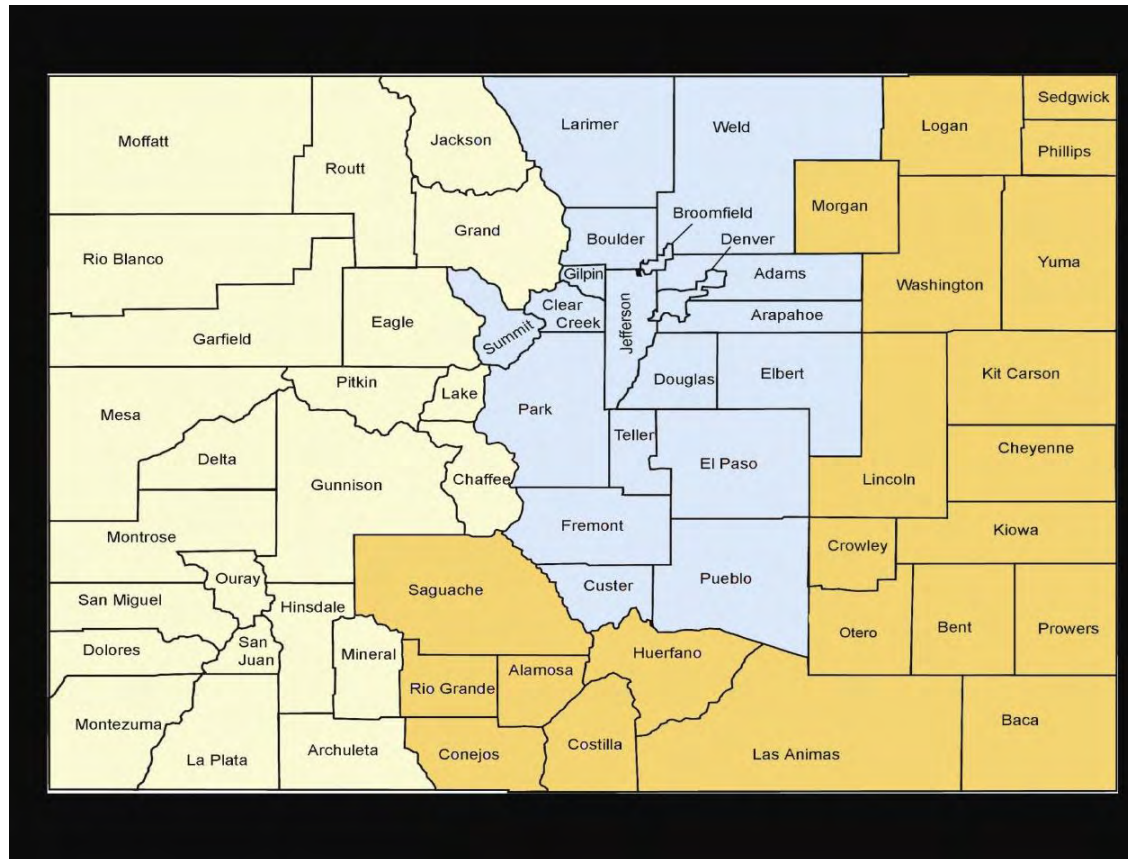
- Complete Letter of Interest with GEO
- or
- Have someone from your office or your current ESCO of choice contact GEO



Governor's
Energy Office



Western, Central & Eastern Regional Representatives for GEO



Western Regional Representative: Joani Matranga, Joani.Matranga@state.co.us

Central Regional Representative: Mona Newton, Mona.Newton@state.co.us

Eastern Regional Representative: Bob Mailander, Robert.Mailander@state.co.us



Closing Comments & Open Discussion

By:

Gary Berngard

Jeff Lyng



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HOPE

MAY NOT BE WARRANTED AT THIS POINT.

www.despair.com

“Hope” is not a business plan... Have one!

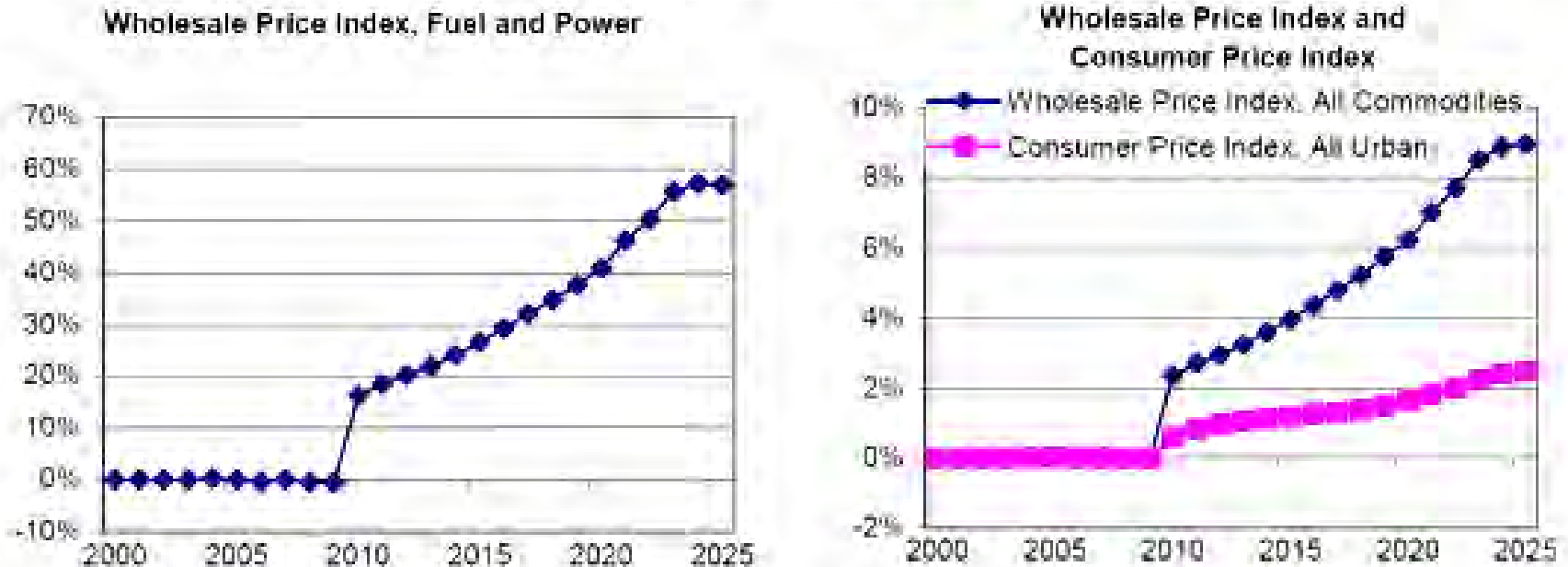


**Lots of resources
available to help you
with development &
implementation of
your plan.**

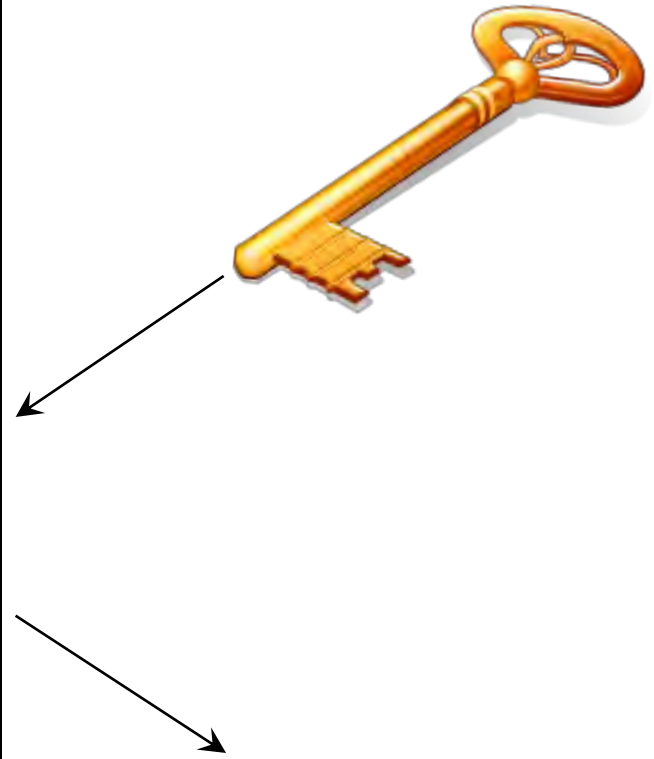
**Some a little different
than others...**

The time is now...

Figure 7.3. Change in Energy, Wholesale and Consumer Prices in the S.139 Case Relative to the Reference Case, 2000-2025 (percent change)



Source: Energy Information Administration, Office of Integrated Analysis and Forecasting, National Energy Modeling System runs MLBASE.D050303A and MLBILL.D050503A.



Performance contracting may be the key...

Remember what your Mother told you...



*“You’ve got to eat your energy efficiency
~~energy~~
renewable energy dessert.”*

Useful web links



- ❑ Energy Services Coalition (“ESC”)
 - For Colorado --
<http://www.energyservicescoalition.org/chapters/CO/index.html>
 - National -- <http://www.energyservicescoalition.org>
- ❑ Colorado Governor’s energy Office (“GEO”)
 - Regarding performance contracting --
<http://www.colorado.gov/energy>
 - Primary website --
<http://www.colorado.gov/energy/commercial/performance-contracting.asp>
- ❑ Wyoming Energy Conservation Improvement Program (“WYECIP”)
http://www.wyomingbusiness.org/business/energy_wyecip.aspx

Questions?

Greening Facilities in the New Energy Economy

May 1, 2008



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