

# Lessons Learned from Private Sector Energy Projects



## Lessons Learned from the Private Sector

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# Lessons Learned from the Private Sector

## Feds are from Mars, Private Sector from Venus

**“Lessons learned”** implies someone did something **“wrong”**

- Private Sector vs. Federal Sector
  - Different objectives, metrics, financial resources, etc.
- Payback & ROI
- Risk Tolerance or Aversion
- Speed to Adopt New Technologies or “Cultures”
- PR & Goodwill

Note: though “Federal sector” broadly includes DOD, in many of the following, DOD has their own set of characteristics – sometimes more like private, other times like feds, other times like DOD.

# Different Needs & Perspectives with Energy Projects

## PRIVATE SECTOR

### Objectives for existence:

Make a profit ==> make a product or serve a need that people want to pay for

### Metrics for success:

Profits (\$\$), ROI (+%)  
==> happy shareholders ( 😊 )

### Resources:

Capital reserves, current profits, financing

## FEDERAL SECTOR

### Objectives for existence:

Non-profit ==> provide a product or service that government says is needed

### Metrics for success:

Happy public, agency leads, and/or congress (funders)  
==> continued funding

### Resources:

Agency budgets, ESPC/UESC financing, congressional line item

# PRIVATE SECTOR - Payback & ROI Views

- Private sector wants to see:
  - ROI in 8-15% range
  - Payback in 2-5 years
- Most private sector companies have their own ROI criteria
  - Some are purely ROI%
  - Some weight **“green messaging”** to clients or public
- Some companies have their own capital – but still expect very short paybacks -- > compared to ROI of 5-8% that “could” be considered worthwhile for bottom line & **“green”** impacts

# FEDERAL SECTOR - Payback & ROI Views

Government sector follow:

- 10 CFR 436
  - Require energy efficiency
- Feds must use:
  - NIST – energy escalation rates and discount factors (20 yr projections – not very realistic)
- Feds want to see:
  - $SIR^* > 1$
  - Payback within financing terms (~20-30 years can be ok)

\*SIR = Savings to Investment Ratio

- Private sector – largely follow “new technology has to work” credo – consequences of not working are immediate and high – mostly due to expected loss of “competitive edge” with perceived project failure

## FEDERAL SECTOR – Risk – Tolerance & Aversion

- Federal sector – it “has to work” but delays in full implementation are more common
- Negative press and PR can hurt more than lost or sunk investment \$\$ -- > next year’s budget

- Culture can change abruptly with:
  - New CEO
  - Merger or acquisition
- When management says “GO!” they usually mean “GO!”
- Timeline - start next week, finish next quarter or this year

- Elections ==> change of administration, change of agency lead => cultural shift – but with agency/cultural inertia
- When they say “GO!” feds usually mean “we will begin looking for the starting line, garnering support, making the case, funding cycles,
  - Worst case - wait for a “change of administration”
- Timeline – start the planning process, get project into 1-5 year planning cycle

# PRIVATE SECTOR – Successful Energy Projects

- Lower energy expenses
- Increase bottom line profits
- Provide great PR and improve corporate image  
(as “green”)
- Provide competitive edge even though it is a  
‘non-product related’ energy project  
(Jiminy Peak – wind)

## FEDERAL SECTOR – Successful Energy Projects

- Generally do not impact “bottom line” - savings don’t lower the price of services/products; don’t go back to the ‘saver’
- Often “no gain” on *‘competitors’* within agency – if your project got funded this year and were successful, someone else’s will next year

## PRIVATE SECTOR – Motivation - Keeping Up with the Jones'

- Private sector - very conscious of competitors and competitive edge
  - If “ABC” is doing it, “XYZ” will do it to show they are an equal player - be green, be fast, be reliable
- For international companies, going into a new country as “green” helps to open doors

- Federal sector agencies do not really compete against each other, but internally
  - Limited funds – get into the planning cycle
  - Gain recognition, promotions
- International agencies have greater sensitivity to energy sources and uses in host country while trying to meet energy goals – understanding “green” helps

## PR & Goodwill - When the Private Sector Does It:

- Their “products” become more *‘green’*
- It can be a demonstration of their innovativeness & creative problem-solving
- Often there is positive press or buzz – may take an initial press release, but replay/repeat is usually free
- Multiple outlets for ‘positive press’:
  - Trade shows
  - TV, radio, internet, newspapers (as news or ads)

## PR & Goodwill - When the Private Sector Does It:

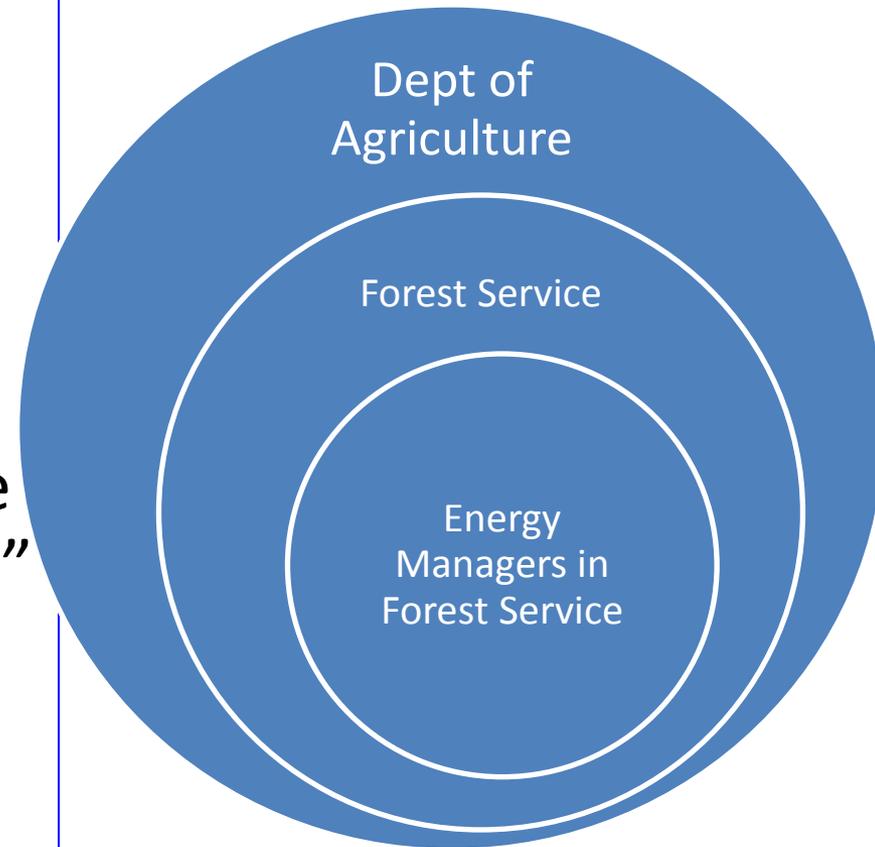
- Businesses are searching for “bottom-line impact”
  - Real cost savings => lower product cost; higher profits
  - More positive press => higher sales
- Buy-in often becomes “corporate mantra”
  - Used internally – corporate culture
  - Used externally – corporate identity
- Large corporate players can replicate at many facilities (Starbucks on every corner)

## PR & Goodwill - When the Federal Sector Does It:

- Better use of taxpayer \$\$ (*loaded phrase*)
- Long-term economics are viable
- Strong “on-the-ground champion” is KEY
- Sometimes project wanes when champion leaves or retires (one horse show)
- On occasion agency-wide endorsement/ adoption, but more frequently, impact is site-by-site (with resident champion)

# PR & Goodwill - When the Federal Sector Does It:

- Publicize success but:
  - Within tighter circles (agency or sub-group)
  - Tighter arenas than private
    - feds more often “answer” to the press, less promotion of how “efficient” or “green” they are



# Lessons Learned that can Apply: Private → Federal

- Telling or sharing what you have accomplished can be better & more frequently shared – most just do a press release
  - If you have an exemplary building – LEED (any rating)
    - **host periodic tours for the public, local universities, local building/housing authorities & feds**
  - If you have a solar PV, solar thermal, wind, geothermal system – **host periodic tours for the public, local universities & feds**

Jiminy Peak - > 15,000 direct contacts with wind !

They are a “ski” company

Improved company “brand” & “provided a new/needed service” – educating the public

# Lessons Learned that can Apply: Private → Federal

- Feds – avoid saying using ‘taxpayers dollars’
  - It is for the greater benefit of how your agency serves the public; enhances the work of people working for the public

Google never says –‘using shareholders dollars’  
Shareholders know they will benefit IF/WHEN  
Google delivers

Public should know they will benefit when the Fed  
sector delivers – with leadership in energy efficiency or  
renewable energy

# Lessons Learned that can Apply: Examples

## Silver Spring Metro Center & New Carrollton Fed. Bldg (GSA)

- Payback Period : 22 years with 2-year construction period
- M/BTUs/year: 94,588
- **Energy Reduction: 60%**
- **Water Reduction: 50%**

## Presidio of Monterey

- Construction of 100,000 sq ft (9,500 sq m) (2003)
- 100,000 sq ft (9,500 sq m) (427 kWh/m<sup>2</sup>/yr)
- 100,000 sq ft (9,500 sq m) (84kWh/m<sup>2</sup>/yr); Source: City Council, High Schools, Colleges, ...
- **energy use reduction: 80%**

These are GREAT OPPORTUNITIES to "tell your story"

And tell it, and re-tell it every year – find new audiences

# Lessons Learned that can Apply: Federal → Private

- Take “long-term view” - educate upward – re-educate – give people chance for “improved thinking”
  - Triple Bottom Line – introduced in 1994 (Elkington) – common today
  - Deep Energy Retrofits – actively pursued in Federal sector today
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- Sustainability – not everything worthwhile has a 2-5 yr payback

Questions?



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