Energy Tax Savers’
EPAct and Tax Incentives Presentation

Energy Tax Savers, Inc.
Charles Goulding
Charles.Goulding@EnergyTaxSavers.com
Presentation Index

- EPAct
- Bonus Depreciation
- Geothermal Heat Pump Tax Credit/Grant for Business
- Geothermal Heat Pump Tax Credit for Residential

- Extended through 12/31/13
- Benefits available from 1/1/06 thru 12/31/13
- Incentivized areas:
  - Lighting
  - HVAC
  - Building envelope
- Available for New Construction and Existing Buildings
- Also available for tenant owned lease-hold improvements
- Benefit available for Primary Designers on Government Projects
Important IRS Notice Rev. Proc. 2011-14

- Taxpayers can now use 3115 process to catch up on all missed EPAct deductions
  - Great for 2006/2007 new construction and retrofits
  - Excellent for investor groups to avoid amended individual returns

- Many property owners are combining prior and current projects for the $1.80
## What’s it Worth?

<table>
<thead>
<tr>
<th>Sample Square Footage</th>
<th>Lighting Minimum Deduction</th>
<th>Lighting Maximum Deduction</th>
<th>HVAC Maximum Deduction</th>
<th>Building Envelope Maximum Deduction</th>
<th>Total</th>
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<td>$ 600,000</td>
<td>$ 600,000</td>
<td>$ 600,000</td>
<td>$ 1,800,000</td>
</tr>
</tbody>
</table>

*Note – with government buildings, the benefit goes to the primary designer*
Commercial Building Immediate Deductions

- Stimulus Package emphasizes Energy Efficiency in Government Buildings
- Architects/Engineers/Lighting Designers
  - DOE goal to incentivize green design in government building sector
  - Benefits passed through to the primary designer of:
    - Federal
      - offices, military bases, court houses, post office, labs etc.
    - State
      - offices, transportation facilities, state universities, court houses etc.
    - County, city, town, village etc
      - offices, schools, town halls, police, fire, libraries etc.
What’s in it for Architects/Engineers/Lighting Designers?

- Growth in this EPAct area for government building designers is exploding
- Successful Design Niches:
  - K-12 Public Schools
  - State Universities and Colleges
  - Military Bases
  - Parking Garages
  - Airports
Allocation of $120,000 Tax Deduction
Government Buildings Only

4 Party Allocation
- Geothermal Specifier: $30,000
- Engineer: $30,000
- Architect: $30,000
- Design & Build Contractor: $30,000

3 Party Allocation
- Geothermal Specifier: $40,000
- Engineer: $40,000
- Design & Build Contractor: $40,000

2 Party Allocation
- Geothermal Specifier: $60,000
- Design & Build Contractor: $60,000

No Allocation
- Geothermal Specifier: $120,000
How do you Qualify?

- **Mechanics**
  - Deductions based on improvements over ASHRAE 90.1 2001
  - Available for installations completed between 1/1/06 & 12/31/13
    - Can begin in prior years
  - Deduction amounts:
    - Lesser of total cost or:
      - $1.80/sq.ft. Whole Building
      - $0.60/sq.ft. Individual Systems
        a. Lighting
        b. HVAC
        c. Building Envelope

ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers)
HVAC (Heating, Ventilation & Air Conditioning)
<table>
<thead>
<tr>
<th>Building</th>
<th>Location</th>
<th>Sq.Ft.</th>
<th>$/sq.ft.</th>
<th>Tax Deduction</th>
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</thead>
<tbody>
<tr>
<td>High School</td>
<td>Rumson, NJ</td>
<td>150,000</td>
<td>$1.20/sq.ft</td>
<td>$180,000</td>
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<tr>
<td>Community College</td>
<td>Branchburg, NJ</td>
<td>50,000</td>
<td>$1.20/sq.ft</td>
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<td>Elementary School</td>
<td>Quaker Hill, CT</td>
<td>69,930</td>
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<td>Perth Amboy, NJ</td>
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<td>Newark, NJ</td>
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<td>32,129</td>
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<td>Neptune, NJ</td>
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<td>Manahawkin, NJ</td>
<td>90,456</td>
<td>$1.20/sq.ft</td>
<td>$108,428</td>
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<td>Camden, NJ</td>
<td>176,257</td>
<td>$1.20/sq.ft</td>
<td>$217,864</td>
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<td>$1.20/sq.ft</td>
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<td>Vineland, NJ</td>
<td>131,150</td>
<td>$1.80/sq.ft</td>
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<td>Office Building</td>
<td>Spokane, WA</td>
<td>70,527</td>
<td>$1.80/sq.ft</td>
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<tr>
<td>High School</td>
<td>Eric, KS</td>
<td>108,210</td>
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<td>Blue Springs, MO</td>
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<td>Car Dealership</td>
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<td>Edinburgh, IN</td>
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<td>Army Barracks</td>
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<td>Madison, WI</td>
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<td>$1.80/sq.ft</td>
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</table>

Totals: $5,063,923

Energy Tax Savers Inc.

Federal Tax Incentives

Geothermal EPAct Tax Deductions

Energy Tax Savers Inc.

144A Jackson Ave, Syosset, NY 11791
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Charles.Goulding@EnergyTaxSavers.com
Biggest EPAct Growth Area

LED’s

LED’s
What Tends to Qualify on the HVAC side?

1. Geothermal (Ground Source Heat Pumps)
2. Thermal Storage
3. High Efficiency VRF units in Rental Apartments/Dorms/Hotels
4. Centralized HVAC in Rental Apartments/Dorms/Hotels
5. Energy Recovery Ventilation
6. Demand Control Ventilation
7. Chillers in buildings < 150,000 sq ft
8. Direct fired heaters in no AC Industrial Spaces
9. VAV (variable air volume devices) in buildings <75,000 sq ft
10. Chilled Beam
11. Magnetic Bearing Chillers
12. Gas fired chillers combined with electric chillers to peak shave
# Warehouse Heater & Efficient Lighting

## Location | Sq.Ft. | W/sq.ft. | Heaters | $/sq.ft. | Tax Deduction |
--- | --- | --- | --- | --- | --- |
Jacksonville, FL | 642,219 | 0.69 | 3(1,850 MBH ea) | $1.20/sq.ft. | $770,663 |
Irving, TX | 701,250 | 0.40 | 20(400 MBH ea) | $1.80/sq.ft. | $1,262,250 |
S. Brunswick, NJ | 200,000 | 0.75 | 4(1,200 MBH ea) | $1.20/sq.ft. | $240,000 |
Franklin, NJ | 140,000 | 0.45 | 1(1,850 MBH) & 1(1,600 MBH) | $1.80/sq.ft. | $72,000 |
Bristol, PA | 61,067 | 0.61 | 2(1,200 MBH ea) | $1.20/sq.ft. | $39,154 |
Bristol, PA | 60,000 | 0.76 | 1(1,600 MBH) & 1(1,200 MBH) | $1.20/sq.ft. | $240,000 |
Edison, NJ | 43,192 | 0.54 | 1(950 MBH) | $1.20/sq.ft. | $51,830 |
Oxford, MA | 68,800 | 0.76 | 1(950 MBH) & 1(800 MBH) | $1.20/sq.ft. | $82,560 |
Hauppauge, NY | 80,324 | 0.63 | 1(3,200 MBH) | $1.20/sq.ft. | $96,389 |
Memphis, TN | 231,345 | 0.39 | 4(1,600 MBH ea) | $1.80/sq.ft. | $416,421 |
Houston, TX | 895,000 | 0.45 | 1(1,200 MBH) | $1.80/sq.ft. | $1,081,465 |
St. Tammany Parish, LA | 852,000 | 0.44 | 5(200 MBH ea) & 2(100 MBH) 1(400 MBH) | $1.80/sq.ft. | $1,533,600 |
Edison, NJ | 95,654 | 0.28 | 15(2 MBH ea) | $1.80/sq.ft. | $172,177 |
Atlanta, GA | 600,814 | 0.44 | 11 (200 MBH ea) | $1.80/sq.ft. | $1,081,465 |
Edison, NJ | 105,403 | 0.33 | 1(1,600 MBH) | $1.80/sq.ft. | $189,725 |
Eagan, MN | 570,567 | 0.44 | 2(600 MBH) & 2(400 MBH) | $1.80/sq.ft. | $1,027,020 |
Whippany, NJ | 292,458 | 0.39 | Special System | $1.80/sq.ft. | $526,422 |
Joplin, MO | 146,901 | 0.31 | 1 (1,000 MBH) | $1.80/sq.ft. | $264,422 |
Indianapolis, IN | 533,520 | 0.78 | Special System | $1.80/sq.ft. | $960,336 |
Norwood, MA | 100,000 | 0.50 | 1 (1,000 MBH) & 2 (200 MBH) | $1.80/sq.ft. | $180,000 |
Buffalo, NY | 851,548 | 0.39 | 4(1,600 MBH ea) | $1.80/sq.ft. | $1,532,786 |
Minneapolis, MN | 731,115 | 0.36 | Special System | $1.80/sq.ft. | $1,316,007 |
Harrisburg, PA | 140,653 | 0.39 | 2(1,000 MBH) | $1.80/sq.ft. | $253,177 |
Langhorne, PA | 98,120 | 0.52 | 1(1,900 MBH) | $1.20/sq.ft. | $117,744 |
Edison, NJ | 98,000 | 0.43 | 1(1,400 MBH) | $1.80/sq.ft. | $176,400 |
Clifton, NJ | 115,003 | 0.43 | 1(1,000 MBH) | $1.80/sq.ft. | $207,000 |
**Totals** | **8,728,030** | | | **$14,958,218** | |
LED REPAct

- This is our proprietary tax service for LED installations in refrigerated warehouses.

- Developed in conjunction with the leading manufacturers of LED’s for cold storage.
Geothermal Free Riding

- Your database of completed geothermal projects is a goldmine
  - Free ride new HVAC tax deductions
  - Free ride LED lighting installations

ACT NOW!
LEED Buildings

- LEED buildings present excellent EPAct opportunities
- LEED buildings are already modeled
- If the LEED EA-1 credit template is sent to us we will review it on a complimentary basis to determine if the building is already “in the money”
Energy “Modeling” required for HVAC & Envelope

- HVAC and Building Envelope
  - Modeling required (IRS Approved)
  - No partial deductions
  - Almost exclusively new construction and
    - Geothermal
    - Thermal Storage
    - Lighting/heater combinations
- LED REPAct
- LEED (Leadership in Energy & Environmental Design) certified
Understanding Energy Models

- IRS has approved thirteen types of modeling software
  - eQUEST, Trane Trace 700, Energy Plus, Carrier HAP, VisualDOE, EnergyGauge, DOE2.2, DOE2.1E & 2.1E-JJH, Owens Corning Commercial Energy Calculator, Green Building Studio, EnerSim, IES <Virtual Environments>
  - other submissions are in process
- Important modern Energy management tool.
- Currently required for all HVAC and building envelope deductions and for whole building lighting alternative.
- In many jurisdictions, rebates are provided for all or substantial portions of modeling costs.
50% Bonus Depreciation

- Placed in Service between:
  - 9/9/2010 and 12/31/2011 → 100% bonus
  - 1/1/2012 and 12/31/2012 → 50% bonus

- Tax Depreciation Schedules less than 20yrs
  - Examples
    - Alternative Energy (Geothermal, Solar, Wind, etc.)
    - Outdoor Lighting not affixed to the building
    - Qualified leasehold improvements
      - Non structural interior improvements to non residential real property pursuant to a lease.
      - Building must be at least 3 years old
      - Original use must commence with taxpayer

- Consult Your Tax Advisor for More Info
Business – Geothermal Heat Pump

- 10% Credit or Grant
- Available thru 12/31/16
- Grant
  - Must be started by 12/31/2011
    - 5% safe harbor
  - Projects >$500,000 require:
    - CPA Agreed Upon Procedure (AUP)
  - Grant applications for >$1,000,000 require:
    - CPA Attestation
Geothermal Heat Pump Property

- Includes equipment that uses energy from geothermal source
  - At least 75% energy used by equipment must be from geothermal source
    - If not, equipment does not qualify as Geothermal Heat Pump Property
  - This may include downstream (after heat pump) items:
    - Pipes
    - Ductwork
    - Heat Exchangers
    - Diffusers
  - Items that do not use geothermal source energy do not qualify
    - Downstream Pumps
    - Downstream Fans
### 100,000 Sq. ft. Geothermal Project

<table>
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<th>Step</th>
<th>Description</th>
<th>Amount</th>
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<tr>
<td>1.</td>
<td>Project Cost</td>
<td>$1,600,000</td>
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<tr>
<td>2.</td>
<td>Estimated 10% rebate</td>
<td>160,000</td>
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<tr>
<td>3.</td>
<td>Project Cost (after rebate)</td>
<td>1,440,000</td>
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<tr>
<td>4.</td>
<td>Tax Credit or Grant 10%</td>
<td>144,000</td>
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<tr>
<td>5.</td>
<td>After 10% Tax Credit</td>
<td>1,296,000</td>
</tr>
<tr>
<td>6.</td>
<td>Remaining Basis (100% - (½x10%))</td>
<td>1,368,000</td>
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<td>7.</td>
<td>Bonus Depreciation (50% for 2012)</td>
<td>684,000</td>
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<td>8.</td>
<td>Value of above at 35%</td>
<td>239,400</td>
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<td>9.</td>
<td>Net Investment Before EPAct</td>
<td>1,056,600</td>
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<td>10.</td>
<td>Excess EPAct Tax Deduction</td>
<td>180,000</td>
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<tr>
<td>11.</td>
<td>Value of above at 35%</td>
<td>63,000</td>
</tr>
<tr>
<td>12.</td>
<td>Net Project Cost (after rebate and tax incentives)</td>
<td>$993,600 (62.1% of original)</td>
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</tbody>
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Residential – Geothermal Heat Pump

- 30% credit
- Available thru 12/31/16
- Must Meet Energy Star Criteria
- Current Energy Star Criteria

  - Closed Loop
    - 14.1 EER
    - 3.3 COP
  - Open-Loop
    - 16.2 EER
    - 3.6 COP
  - Direct Expansion
    - 15 EER
    - 3.5 COP
What does Energy Tax Savers Deliver?

- Pre-project EPAct Marketing Material
- Complimentary Design Analysis
- Complimentary Tax Benefit Assessment
- Comprehensive EPAct Tax Package
  - Energy Reduction Plan (ETSI Software)
  - Building Energy Model (ETSI Reviewed)
  - Tax Deduction Calculation (ETSI Software)
  - Owners Manual, highlighting energy savings
  - Design Certification (ETSI Document Creation and Review)
  - Post-Implementation Inspection (ETSI Document Creation and Review)
  - Audit Assistance
Long Island EPAct Projects
Energy Tax Savers Inc.

http://www.energytaxsaverson.com/

Energy Tax Savers
144A Jackson Avenue
Syosset, NY 11791
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Fax: 631.240.5165

Email: Charles.Goulding@EnergyTaxSavers.com