DLA Energy Energy Contracting Initiatives

Installation Energy
June 28, 2011
Overview

• Who We Are and Our Mission
• Energy Initiatives
• Federal Renewable Energy Goals
• Electricity Program
• Regulated Utility Green Pricing Programs
• Renewable Energy Certificates (RECs)
• Demand Response
• Energy Savings Performance Contracts (ESPC)
• Power Purchase Agreements (PPA)
DLA Energy

Mission:
• To provide the Department of Defense and other government agencies with comprehensive energy solutions in the most effective and efficient manner possible.

Vision:
• Our Customers’ First Choice for Energy Solutions

DLA Energy Installation Energy’s Supporting Role:
• Acquisition support for facility energy requirements, to include:
  – coal, natural gas and electricity commodity purchase support,
  – renewable energy credit purchases,
  – coordinator for DoD’s participation in electricity demand response programs
  – energy savings performance initiatives, and
  – long term renewable energy project development.
## Federal Renewable Energy Requirements

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• 5% FY 2010-2012</td>
</tr>
<tr>
<td></td>
<td>• 7.5% FY 2013…</td>
</tr>
<tr>
<td>Executive Order (E.O.) 13423</td>
<td>50% EPAct 2005 Goal must come from “new” sources (1999 and newer)</td>
</tr>
</tbody>
</table>

* Defines “renewable energy” as **electric energy** generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

† A double bonus exists for renewable projects on federal or Native American land.
DLA Energy
Electricity Program

- DLA Energy is executing the competitive acquisition of retail open access for Department of Defense and federal civilian agencies in states that have implemented deregulation. The DoD components are encouraged to partner with DLA Energy and aggregate regional electricity requirements to competitively procure electricity and ancillary services.

- DLA Energy has:
  - Awarded over 624 million kilowatt hours valued at over $36 million in FY10.
  - Single and multi-year contracts supporting delivery of over 14.6 million megawatt hours to over 600 accounts.
  - Provided electricity contract support to DoD and federal civilian customers in deregulated market areas, to include Maryland, New Jersey, Pennsylvania, Maine, Connecticut, Rhode Island, Massachusetts, New York, Illinois, Texas and District of Columbia.
Installation Energy
Electricity Program

DLA Energy is actively managing over 14.6 million megawatt hours (MWh) of electricity valued at $1.2 billion under multi-year contracts.

<table>
<thead>
<tr>
<th>Purchase Area</th>
<th># of Contracts</th>
<th>Number of Accounts</th>
<th>State</th>
<th>Total kWh Awarded</th>
<th>Total $ Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>7</td>
<td>422</td>
<td>Texas</td>
<td>1,810,196,922</td>
<td>$127,957,207</td>
</tr>
<tr>
<td>Mid-Atl Portfolio</td>
<td>1</td>
<td>41</td>
<td>MD, NJ</td>
<td>6,811,573,580</td>
<td>$578,983,754</td>
</tr>
<tr>
<td>Fermi</td>
<td>1</td>
<td>1</td>
<td>IL</td>
<td>481,880,000</td>
<td>$21,132,677</td>
</tr>
<tr>
<td>MISO</td>
<td>1</td>
<td>12</td>
<td>IL</td>
<td>299,220,278</td>
<td>$12,946,556</td>
</tr>
<tr>
<td>Maine</td>
<td>1</td>
<td>2</td>
<td>Maine</td>
<td>41,650,000</td>
<td>$3,073,770</td>
</tr>
<tr>
<td>PJM Large</td>
<td>7</td>
<td>51</td>
<td>MD, NJ, IL, DC</td>
<td>3,338,010,697</td>
<td>$319,197,844</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>3</td>
<td>2</td>
<td>RI, CT, MA</td>
<td>329,346,317</td>
<td>$33,220,751</td>
</tr>
<tr>
<td>PJM Small</td>
<td>5</td>
<td>42</td>
<td>MD, NJ, DC</td>
<td>353,804,610</td>
<td>$28,669,288</td>
</tr>
<tr>
<td>PP&amp;L</td>
<td>2</td>
<td>8</td>
<td>PA</td>
<td>35,215,280</td>
<td>$35,215,280</td>
</tr>
<tr>
<td>SPR</td>
<td>1</td>
<td>2</td>
<td>Texas</td>
<td>234,067,821</td>
<td>$17,626,098</td>
</tr>
<tr>
<td>NASA</td>
<td>1</td>
<td>12</td>
<td>Texas</td>
<td>405,610,984</td>
<td>$27,106,473</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>31</strong></td>
<td><strong>633</strong></td>
<td><strong>14,622,219,737</strong></td>
<td><strong>$1,240,344,980</strong></td>
<td></td>
</tr>
</tbody>
</table>
Electricity Program-Green Purchases

• In a competitive electricity market, electricity customers can choose their electricity supplier and are not limited to their local utility.
  – Purchasing renewable power refers to selecting an electricity supplier that provides a product that includes some percentage of renewable power.
  – Only available in a limited number of states.

• Best if the renewable power plant is within your electric region.
  – Some renewable suppliers bundle electricity with renewable energy certificates purchased separately. These RECs may not come from a renewable plant in your region.
Regulated Utility Green Pricing Programs

• Regulated utility green pricing programs are voluntary programs that allow customers to purchase renewable power from their utility, usually at a premium.
  – Utilities offer these programs for a variety of reasons (interest in developing renewable power, customer interest, Commission requirements, etc.).
  – Best programs are those that exempt renewable customers from fuel cost adjustments often included in electric rates to reflect the varying natural gas and other fuel costs.
  – Utilities use a variety of methods to provide renewable power through their green pricing programs:
    • Own renewable power plant(s)
    • Purchase bundled renewable power
    • Purchase RECs
Renewable Energy Certificates (RECs)

• Also known as:
  – Renewable Energy Credits
  – Green Tags
  – Tradable Renewable Certificates
  – Green Energy Certificates/Credits

• Renewable energy systems produce two distinct products that can be unbundled and sold separately:
  – Generic electricity which is resultanty sold into the local grid or used on site
  – RECs, which are the renewable/environmental attributes of the power generated from renewable energy system. All greenhouse gas emissions and other environmental attributes should be included

• RECs come from renewable energy projects all over the country and a variety of renewable resources.
Renewable Energy Certificates (RECs)
REC Advantages

• RECs have no physical constraints and can come from any renewable energy project located in the United States.
  – No transmission or ancillary services are required.

• Utility providers and bills are not changed.

• RECs can be used for a leased facility.

• RECs can aggregate multiple sites.
  – REC purchases are often made at the agency level.

• RECs are an option if no on-site renewable energy project opportunities exist and/or where renewable power delivery is restricted because of physical or institutional barriers.

• RECs encourage future renewable development.
REC Disadvantages

• RECs do not offer protection against fuel price volatility.

• REC costs are in addition to utility costs.

• RECs are not a long term method for meeting the federal renewable energy goal.

• Costs are not an investment in direct facility infrastructure development.

• There is no guarantee of renewable energy development in your region (unless you limit renewable power plant location used to supply the RECs to your state/region).
Installation Energy

REC Program

Renewable Energy – established in 2001
- In December 2001, DLA Energy awarded its first renewable energy contract on behalf of various DoD and federal civilian customers in Texas in response to Executive Order (EO) 13123, which encouraged the federal government to significantly improve its energy management in order to save taxpayer dollars and reduce emissions that contribute to air pollution and global climate change.

SUMMARY OF DLA ENERGY RENEWABLE ENERGY CREDIT PURCHASES (2003-2010)

<table>
<thead>
<tr>
<th>Year</th>
<th>Landfill Gas</th>
<th>Blend (BM/W/LFG)</th>
<th>Geothermal</th>
<th>Wind</th>
<th>Biomass</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Renewable Energy Certificates (REC): A REC is a tradable, non-tangible energy commodity in the United States that represents proof that 1 MWh of electricity was generated from an eligible renewable energy (solar, wind, biomass, ocean, geothermal, municipal solid waste, “new” hydroelectric generation) resource.
REC Procurement Requirements

• REC prices depend on renewable resource type, location, and renewable project online date.
  – Federal agencies must use 50 percent “new” renewables to meet the federal renewable energy goal.
    • New is defined as placed into service after Jan. 1, 1999.
    • Old RECs (from any renewable plant that was placed into service before January 1, 1999) are significantly cheaper than new RECs.

• Vintage language to ensure when the renewable energy was generated
  – Allows RECs from six months before the contract year and three months after the contract year.
  – Fiscal Year 2011: RECs are allowable from April 1, 2010, (six months prior to the beginning of FY 2011) to Dec. 31, 2011, (three months after the end of FY 2011).

• Verification supported through attestation forms to ensure RECs have not been double counted.
DLA Energy Demand Response Program

• An approach to…
  – Establish Master Agreements with vendors
  – Assist customers in understanding demand response
  – Provide customers an easier means to enter into DR Programs
  – Create a uniform strategy to enroll in DR Programs

• Applicability
  – Anywhere in the U.S. where DR programs are available, through ISO’s, RTO’s and/or local utilities
  – Currently have over 70 installations across PJM, ISONE, ERCOT, NY ISO and CAISO
  – Total MW’s enrolled: 178

• Total credit received since program inception: $7.8 million
Installation Energy
Demand Response Program

- **Demand Response – established in 2008**
  - DLA Energy has signed agreements with multiple curtailment service providers across the U.S. and is actively issuing task orders for customer participation in load reduction programs during times of peak demand in return for financial incentives.

- **DLA Energy**
  - Signed agreements with 14 curtailment service providers.
  - Supported over 60 DoD and federal civilian customer sites in demand response participation in PJM, New York (NYISO), New England (ISO-NE), Texas (ERCOT), Arizona (TCE), Colorado (Xcel), and California (CAISO and SCE) territories.
  - Verified over $7.8 million in credits received by customers since 3rd Qtr 2008.

<table>
<thead>
<tr>
<th></th>
<th>FY09</th>
<th>FY10</th>
<th>FY11 (to date)</th>
<th>Program Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Response Credits</td>
<td>$778,686</td>
<td>$3,805,412</td>
<td>$3,292,681</td>
<td>$7,876,779</td>
</tr>
</tbody>
</table>
How the Program Works

- Vendor(s) works with the customer to determine what DR program works best for the installation
- Customer selects the DR program and vendor, and then notifies DLA Energy
- DLA Energy contacts the selected vendor
- Selected vendor sends the agreement to DLA Energy for signature
- DLA Energy signs the agreement and forwards a copy to customer and vendor
- Vendor issues future credits to customer utility account number
DLA Energy
Energy Savings Performance Contracts & Renewable Energy Program

- DLA Energy is one of DoD’s contracting agents for meeting established energy efficiency and renewable energy goals.

- Assist customers in determining which contractual and financing vehicles are applicable to their renewable energy or energy conservation effort.

- DLA Energy has:
  - Awarded over $430 million in ESPCs for DoD (primarily Army) in meeting the specified energy reduction goals. These projects have saved 868 billion btu’s/year (energy).
  - Issued multiple solicitations for large and small scale solar projects.
  - Signed a support agreement to provide procurement support to the Army in the development of a geothermal plant at Hawthorne Army Depot, Nev.
  - Multiple renewable energy and ESPC initiatives in the planning or acquisition phase in support of the Army and other DoD activities.
ESPCs

- ESPCs allow federal agencies to accomplish energy savings projects without up-front capital costs.
- Are a contracting mechanism that allows energy efficiencies and capital improvements to be installed at your facility through a third party.
- Utilize Department of Energy Super ESPC Indefinite Delivery Indefinite Quantity (IDIQ) contracts to award task orders to an Energy Service Company (ESCO).
- ESCO encourages the development and implementation of the energy project.
- ESCO identifies and guarantees a level of cost savings in agreement with the government.
- Customer pays the ESCO over the term of the contract out of the energy and energy-related savings resulting from the project, so the funds are self-producing out of the current utility budgets being spent.
Power Purchase Agreements

- Power Purchase Agreements (PPA) allow for third party financing of on-site renewable energy projects
  - Developer installs a renewable energy system on agency property with the agreement that the agency will purchase the power generated by the system
  - Government pays the developer a per kilowatt hour price for the energy that is generated by the project and consumed at the site for the duration of the contract
  - Developer owns, operates and maintains the system for the life of the contract
- Benefits include:
  - no up-front capital costs.
  - ability to monetize tax incentives.
  - a known long-term energy price.
  - no O&M responsibilities, and minimal risk to the agency.
- Considerations include:
  - limited federal experience with PPAs, contract term limitations, challenges with site access.
Power Purchase Agreements

- Power Purchase Agreements (PPAs)
  - Is this the appropriate vehicle for project execution?
  - Other contracting vehicles for consideration
    - Energy Savings Performance Contracts
    - Utility Energy Savings Performance Contracts

- Project will only be as good as the requirements received:
  - Prior renewable assessments/screenings
  - Proposed project (type, size, location)
    - Site diagrams, maps, electrical drawings
  - Location of planned interconnection
    - Will additional infrastructure be required, new lines added
    - Is the current facility privatized?
Power Purchase Agreements
Considerations

- Regulatory Issues and Utility Coordination
  - Are PPA’s legal in your state/utility
  - Is PUC approval required for any aspect of the project
  - Utility involvement
    - Interconnection requirements
    - Standby charges or tariff changes
    - Applicable incentives/rebates
Power Purchase Agreements

• Other Key Issues
  – National Environmental Policy Act (NEPA)
  – Land Use Agreement
  – Facility Access Requirements
  – Disposition of RECs
  – Length of Contract
    • FAR Part 41, 10 years
    • 10 USC 2922a, up to 30 years
  – Approval Processes for:
    • Implementation of the project
    • Land use agreement
    • 10 USC 2922a approval
Points of Contact

  – Kevin Ahern, 703-767-8572, kevin.ahern@dla.mil
  – Pam Griffith, 703.767.8328, pamela.j.griffith@dla.mil
  – Andrea Kincaid, 703.767.8669, andrea.kincaid@dla.mil