East Providence Site Reclamation and Solar Power Project

Proposed Team and Approach

October 19, 2010

Team Overview

We are an experienced team that has a long track record of successful power plant development and brownfield reclamation.

cme

- Over 30 years of successfully developing environmentally conscious power, energy conservation and energy related projects.
- Developing solar plants in several states.

CORNERSTONE POWER DEVELOPMENT LLC

- Leadership team has cumulative experience of over 120 years of developing, owning, and operating over 50 power plants totaling thousands of megawatts.
- Currently developing 150 MWs of solar power plants in several northeastern states.

WHITMAN

- Full-service environmental, engineering, and renewable energy design firm with more than 24 years of experience with remediation and brownfield reclamation. Extensive experience in landfill closure and wetland restoration.
- Developed and constructed 11 solar installations.

Geosyntec consultants

- Specialized consulting and engineering firm that is a leader in the use of innovative site investigation and characterization techniques and in the use of innovative remedial approaches and technologies at contaminated properties.
- Experience spans over 500 facilities including extensive experience with landfill closure.

Team Overview

The team has successfully worked together over the past 10 years and is currently collaborating on several solar power projects.

- **First worked together on successfully developing a 750 MW natural gas power plant over 10 years ago in Ohio.**
- **Currently working together on developing seven solar plants totaling over 75 MWs in Ohio, Massachusetts, Pennsylvania, and New Jersey.**
- **Significant experience jointly redeveloping environmentally impacted properties.**

Project Summary

What is a solar power farm?

- **Rows of solar panels that are mounted on tracker systems.**
- **The rows are spaced far enough apart that a service vehicle can drive between them.**
- **The tops of the panels sit about 8 feet above the ground.**
- **The majority of the ground remains covered with vegetation.**

Example of rows of solar panels.

Project Summary

Solar power is viable in the northeast, and produces electricity at a stable price over the long-term.

- **Solar power is viable in the northeastern United States.**
  - Irradiance profile suitable for effective solar generation in northern latitudes.
  - Decreasing cost of solar equipment.
  - Increased efficiency of solar modules, inverters, and trackers.
  - Increased state requirements for renewable power.

- **Solar power has a high installed cost per unit of output compared to large fossil fuel power plants, but over the long run has proven financial benefits.**
  - Solar power plants can be built in locations where large natural gas and coal plants cannot.
  - Solar power plants have low operating costs and free fuel.
  - The useful life of many components of a solar power plant exceeds 20 years.
  - Solar power provides stable electricity prices that do not fluctuate with fuel costs.

Project Summary

The City has set an ambitious but achievable goal.

- **The City wishes to make renewable energy an integral part of its reclamation of 229 acres including a 70-acre landfill.**
- **A "fast track" first phase solar installation can be constructed while the landfill remediation occurs.**
  - This fast-track installation will need to utilize land that is neither wetlands nor landfill.
- **The landfill remediation is a multi-year process, and is a necessary component of reclaiming the site.**
  - Once the landfill is remediated, those acres are a logical location for a portion of the renewable energy installation.
- **We believe that the City will find solar energy capacity to be the prudent financial decision.**
  - The exact size and timing for installation of the first and future phases of solar energy will be determined during the first four months.
  - The fast-track solar installation could be installed within the first year of the project.

Project Summary

Hypothetical site layout.

Proposed Approach

SITE PLAN AND REMEDIATION

Determine Remediation Approach and Complete Site Plan ***(Months 1-4)***

- Obtain and review existing environmental data (weeks 1-8)
- Meet with regulatory agencies and develop workplan (weeks 1-8)
- Develop sequence for environmental remediation (weeks 1-6)
- Determine approach for maintaining wetlands (weeks 1-6)
- Assess appropriateness of commercial development (weeks 1-6)
- Develop Site Plan (weeks 5-6)
- Identify and explore remedial funding sources (weeks 1-12)
- Gain regulatory approval for remediation (weeks 9 -16)

Conduct Investigation and Prepare Closure Documents ***(Months 5-16)***

- Initiate supplemental environmental investigation and characterization (months 5-10)
- Evaluate data, prepare remedial design/closure landfill documents (months 10-12)
- Regulatory review (months 12-16)

Close Landfill & Monitor ***(months 17-30+)***

- Landfill Closure including preparation for renewable energy installation(s) (months 16-30)
- Post Closure Monitoring (months 30+)

RENEWABLE ENERGY FEASIBILITY AND INSTALLATION

Renewable Energy Feasibility Assessment and Prepare for Fast-Track Renewable Project ***(Months 1-4)***

- Determine renewable capacity required by City
- Assess viability of net metering
- Assess viable solar and wind technologies
- Develop financial model for Phase I, Phase II, and Phase III of Renewable Energy
- Work with City to apply for appropriate grant money
- Select land for Phase I Renewable Energy project
- Work with National Grid to determine transmission takeaway capacity
- Negotiate PPA with City for Phase I Renewable Energy

Phase I Renewable Energy ***(Months 5-8)***

- Raise project financing for Phase I Renewable Energy
- Install Phase I Renewable Energy

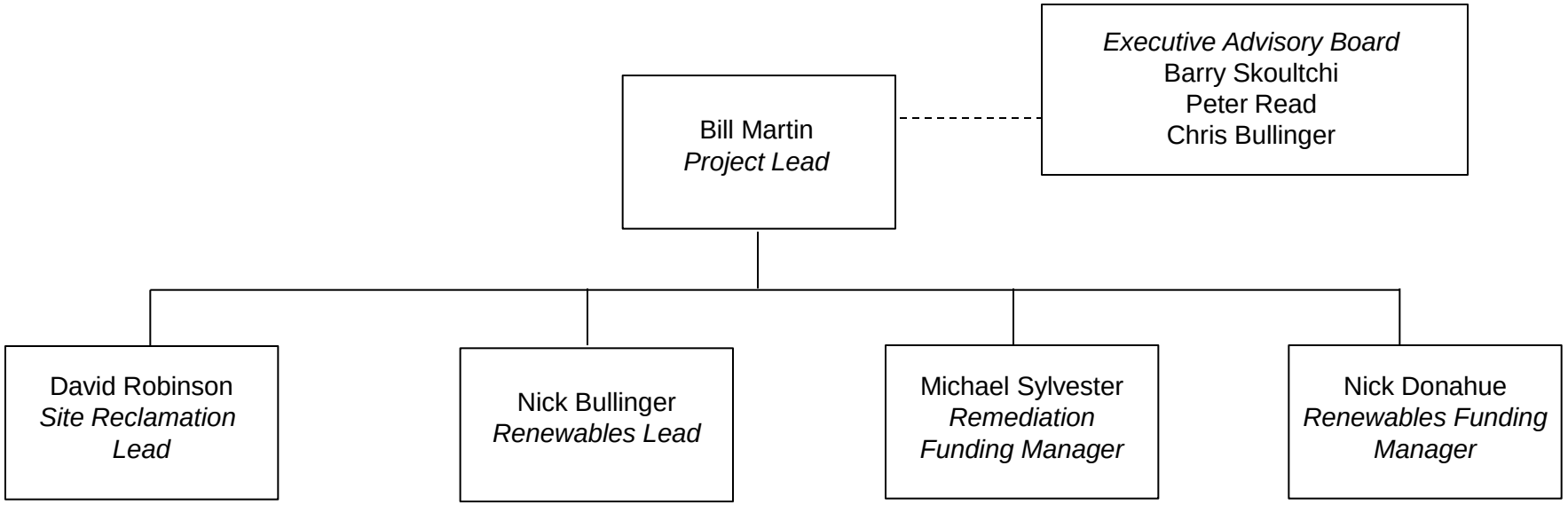
Phase II Renewable Energy ***(Months 17-24)***

- Work with City to develop process for soliciting bids for Phase II Renewable Energy
- Raise grant money and project financing for Phase II Renewable Energy
- Install Phase II Renewable Energy

Phase III Renewable Energy ***(Months 25-32)***

- Work with City to develop process for soliciting bids for Phase III Renewable Energy
- Raise grant money and project financing for Phase III Renewable Energy
- Install Phase III Renewable Energy

Project Team



- David Bonnet, *Landfill Closure Engineer*
- Douglas Larson, *Landfill Closure Engineer*
- Edward Huss, *Remedial Design Engineer*
- John Colagradne, *Lead - Civil / Site Engineer*

- Fazli Qadir, *Renewable Strategist*
- Carey Ruetsch, *Lead – Renewable Design*
- Efstathios Kenterakis, *Electrical Engineer*

Project Team

The Team has the combined skills to effectively execute the project.

- **Renewable Power Feasibility, Financial Modeling, and Development**
  - Thirty years of experience assessing power plant feasibility, selecting technology, determining project phasing, and developing renewable power projects.
- **Brownfield Redevelopment/Landfill Closure**
  - Team has experience in performing environmental due diligence assessments, site and remedial investigations, remedial action designs and implementation.
  - Brownfield redevelopment experience extends across many uses including residential, commercial, open space and schools.
- **Renewable Energy and Environmental Funding**
  - Strong track record of raising capital in appropriate and creative structures to fund power projects.
  - Extensive experience acquiring federal, state and local funding and grants for development projects, especially those with environmental issues.
- **Renewable Energy and Environmental Communication**
  - Numerous public hearings and public education efforts for power plants and renewable power plants.
  - Experience with federal, state and local entities in communication of environmental issues to the public.
- **Turnkey Solar Design & Installation**

Contact Information

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