Update on the BP Solar/LIPA Solar PV Project

Community Advisory Committee Meeting
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BP/LIPA Solar Project - Background

- LIPA Request for Proposal – April 2008
- Companies begin approaching BNL
- DOE expressed interest in the possibility of hosting a solar PV array at BNL
  - DOE committed to promoting and developing renewable energy projects
- DOE/BNL looked at potential locations to “host” PV arrays
  - Consideration for environmental concerns, operations, future science, and access to LIPA grid
- DOE will continue to own the land
  - Provide easement
- DOE requirement for research
  - To advance solar PV design
BP/LIPA Solar Project: Parties – Relationships

- Long Island Power Authority (LIPA) – Purchaser of Power
- BP Solar – Project Developer
- Long Island Solar Farm (LISF) LLC – Subsidiary of BP Solar
- Department of Energy (DOE) – Owner of BNL
- Brookhaven Science Associates (BSA) – M&O contractor for DOE

- LIPA – LISF LLC: Power Purchase Agreement
- DOE – LISF LLC: Easement for use of land
- DOE – BSA: Environmental Assessment of project
BP Solar – The Project

- **Size:** ~32 MW (AC)
- **Annual output:** ~44,000,000 kWh (estimated)
- **Carbon avoidance:** ~31,000 tons/year
- **Term:** 20 year Power Purchase Agreement (PPA) w/LIPA
- **Land use:** ~200 acres
- **Technology:** Crystalline solar photovoltaic modules
- **Construction schedule:** Spring/Summer 2010 – May 2011
- **Workforce:** 200+ full-time employees during peak
  - 2 FTE’s during operation
BP Solar Project – Developments and Status

- **LIPA Selects BP Proposal as Top Selection:** 02/26/09

- **Environmental Assessment**
  - Draft issued August 2009
  - All comments received were addressed
  - Final issued 12/04/09 with Finding of No Significant Impact (FONSI)

- **Project Footprint Modified by DOE/BNL**
  - Removed northernmost parcel of higher quality habitat (~14 acres)
  - All continues to be within Compatible Growth Area (CGA)
  - Very little of the land would be considered Prime Pine Barrens habitat
    - Virtually all areas previously farmland or otherwise disturbed
BP Solar Project – Developments and Status

- **Natural Resource Benefits**
  - DOE to protect 51 acre tiger salamander pond and associated area
  - BP Solar to provide $75,000 to improve/restore Pine Barrens habitat
  - LIPA to provide $2 million to acquire and preserve land in Pine Barrens

- **LIPA Board Approval:** 12/17/09
  - To NY Attorney General and Comptrollers Office for Final Approval

- **Design Status:** 50%

- **BP to Solicit Construction Bids:** Winter/Spring 2010
Climate Change

Growing global concern regarding climate change & GHG generation

- Removing ~160 acres of trees = loss of ability to sequestrate
  - Lose 842 metric tons CO₂/year
    (33,680 metric tons over 40 year estimated project life)

- 32 MW of Solar Power = avoidance of greenhouse gases
  - Avoids discharging 30,950 metric tons of CO₂/year
    into atmosphere from conventional generating means
    (1,238,015 metric tons over 40 years)

- Other air pollutants avoided
  - Nox: 1,320 metric tons
  - SOx: 3,040 metric tons
  - Ozone: 1,200 metric tons
Discussion