

# Update on the BP Solar/LIPA Solar PV Project

*Community Advisory Committee Meeting  
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*a passion for discovery*



# 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
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- **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

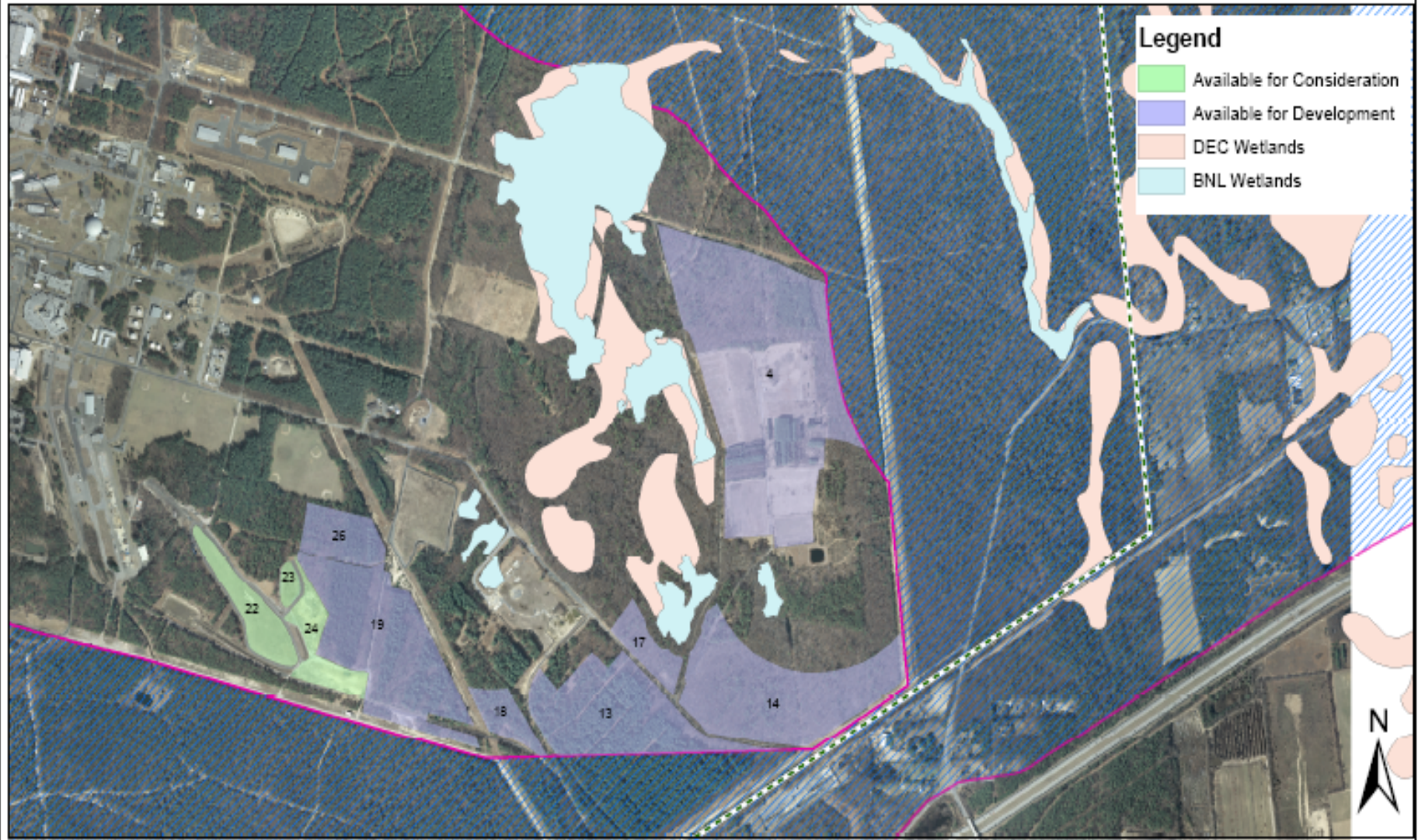
- DOE to protect 51 acre tiger salamander pond and associated area
- BP Solar to provide \$75,000 to improve/restore Pine Barrens habitat
- LIPA to provide \$2 million to acquire and preserve land in Pine Barrens

## ■ 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



- Legend**
- Available for Consideration
  - Available for Development
  - DEC Wetlands
  - BNL Wetlands

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Environmental Protection Division

## Proposed Areas for BP Solar Project



\*\* Solar Areas modified to accommodate 100' wetland buffer.

# Climate Change

Growing global concern regarding climate change & GHG generation

■ **Removing ~160 acres of trees = loss of ability to sequestrate**

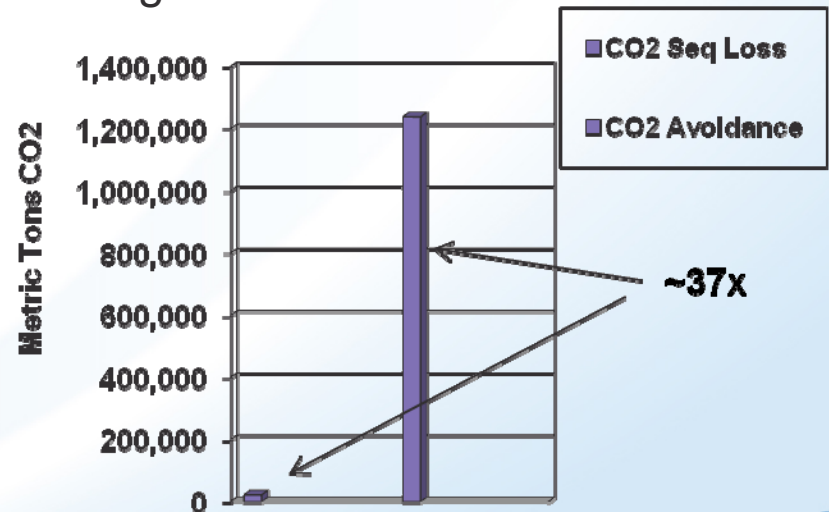
- Lose 842 metric tons CO<sub>2</sub>/year  
(33,680 metric tons over 40 year estimated project life)

■ **32 MW of Solar Power = avoidance of greenhouse gases**

- Avoids discharging 30,950 metric tons of CO<sub>2</sub>/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

