Cricket Valley Energy

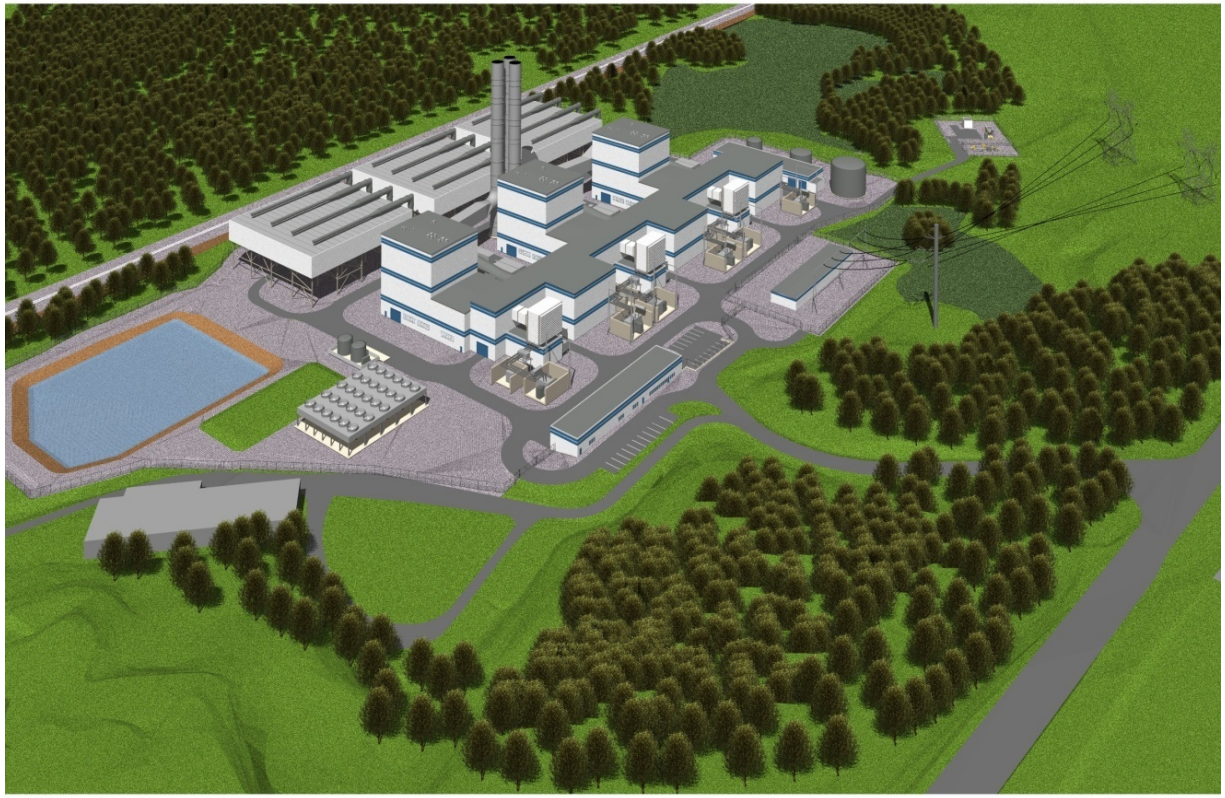
Advisory Working Group

Air Quality

February 3, 2010

Agenda

- Introductions
- About Advisory Groups
- Project Review
- Air Quality Discussion
- Q&A
- Next Meeting



What is an Advisory Working Group?

- 3 Advisory Working Groups (AWGs)
  - Air Quality
  - Safety and Traffic
  - Water, Wetlands and Wildlife
- Small, hands on groups with representatives from public, private and nonprofit sectors
- Forum for exchange of information, discussion of issues, solicitation of feedback the study team will take into consideration
- Supplemental to formal study process—AWG is not an official part of the SEQR process

What is Expected of AWG Members?

- Attending working group sessions
- No specialized knowledge needed—technical information will be presented in layman terms
- Interest and commitment to participate—Speak Up
- If you represent an organization, keep it informed of AWG information, and give us feedback
- Members can serve on one, two or all three groups

Meetings

- Workshop-style sessions to explore technical details of the project
- Project team representatives will support discussions
- Each group is a work in progress
- Meetings will be held as needed or every 4-6 weeks
- Overlap between topics is expected

Project Overview

Features	Site Map
▪ 1,000 Megawatts (MW) ▪ Combined-Cycle Technology ▪ Next to Power Lines ▪ Next to Natural Gas Pipeline ▪ Industrially Zoned ▪ Tree Buffer ▪ Hill Buffer ▪ Previously Developed Site	

Project Schedule

Recent Events

- Nov 2009 – SEQR Initiated w/ Special Permit Application
- Dec 2009 – Open House at Community Outreach Office
- Jan 2010 – Wetlands Application Submitted
- Feb 2010 – Advisory Working Groups
  - Air Quality: Feb 3rd
  - Safety & Traffic: Feb 9th
  - Water, Wildlife, & Wetlands: Feb 17th
- March 2010 – Lead Agency Determination
- April 2010 – SEQR Scoping Hearing

Air Quality

Fred Sellars - ARCADIS

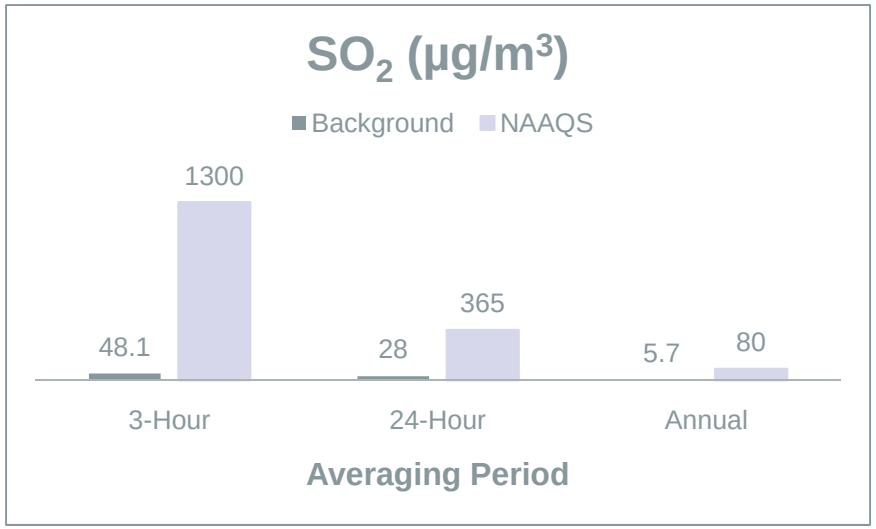
Experience

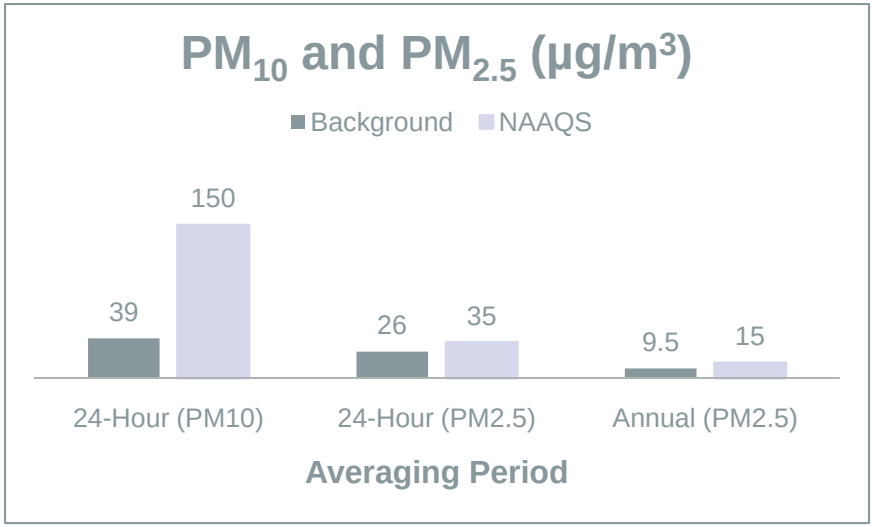
Qualifications

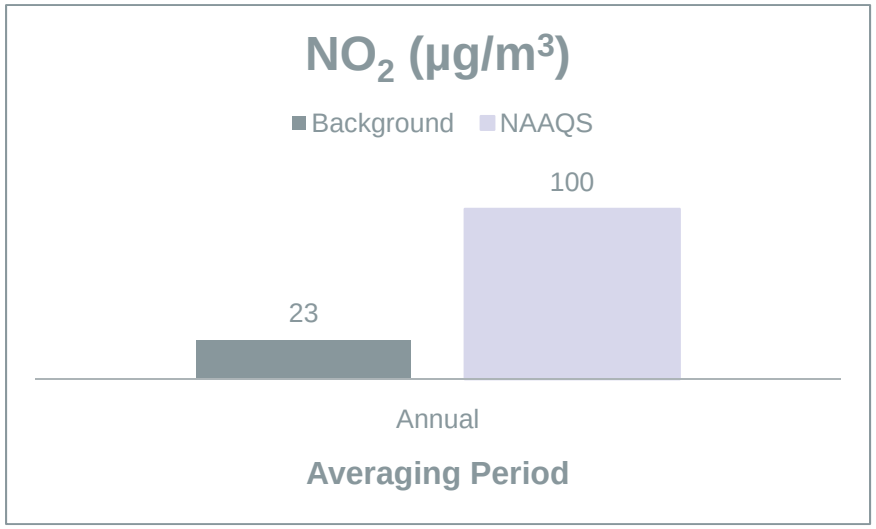
Air Quality Standards

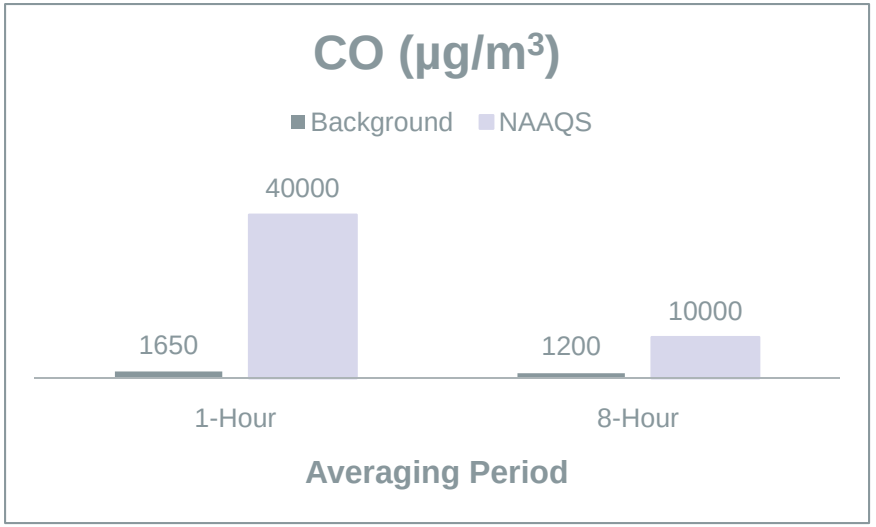
- **Health-based *ambient air quality standards*, set by USEPA/NYSDEC to protect the most sensitive people:**
  - **Ozone**
  - **Particulate Matter – PM**
  - **Sulfur Dioxide – SO_2**
  - **Nitrogen Dioxide – NO_2**
  - **Carbon Monoxide – CO**
  - **Lead**
- ***Air toxics guideline concentrations* based on each proposed source's contribution to air quality – set by NYSDOH based on risk levels**

How Clean is our Air?









Air Quality Permitting

- **USEPA/NYSDEC permitting programs**
  - Nonattainment New Source Review – for “non-attainment” pollutants (ozone)
  - Prevention of Significant Deterioration (PSD) Review – for “attainment” pollutants (all others)
  - Dutchess County is in attainment of all ambient air quality standards except ozone
  - Most of the Northeast U.S. is designated as non-attainment for ozone

Air Quality Protection Demonstrations Required

- Emissions are controlled with the Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER) Technology
- Emissions offsets are required for nonattainment pollutants (ozone precursors – NO_x, VOC)
- Air quality impacts cannot cause or significantly contribute to a violation of the air quality standards, taking into account existing air quality, contributions from our project and cumulative impacts from other major sources
  - For pollutants with project impacts below Significant Impact Levels (SILs) – no further analysis
  - For pollutants with project impacts above SILs – cumulative modeling with other major sources

Air Quality Focus Areas

- Compliance with air toxics guideline concentrations
- Additional impacts
  - Environmental Justice
  - Vegetation and soils
  - Visibility
  - Acid rain
  - Air Quality Related Values in designated “pristine” areas
  - Greenhouse gases
  - Accidental release consequence analysis

Project Features

- Clean burning natural gas only
- Same products of combustion as your furnace or stove
- State-of-the-art emissions controls
  - Selective catalytic reduction
  - Oxidation catalyst
- Good Engineering Practice stack height to minimize air quality impacts
- Emissions will be monitored continuously (CEMs) and reported to NYSDEC

Approach to Air Quality Study

- Detailed Modeling Protocol approved by USEPA and NYSDEC
- Selection/approval of meteorological data for modeling
- Receptor grid set to capture highest impacts and ensure sensitive receptors are included
- Worst-case emission levels conservatively assumed
- Short-term and long-term impacts compared to SILs
- Cumulative impacts (for pollutants with impacts above SILs) to ensure compliance with all standards and guidelines

Questions & Contacts

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