



**Resolution of Issues Relevant to S&L Work Scope**

No	Source	Description	Resolution
<b>Technology and Locations</b>			
1	IPPNY NRG KeySpan	New technology (LMS100) should not be used (IPPNY, KeySpan); LMS100 should be considered for NYC (NRG)	LMS100 will not be used as a technology alternative because the combination of regulatory approvals and construction duration would preclude operation in the 2008-11 window
2	Meeting Notes	Present data from S&L experience on what technologies are being built elsewhere.	Of 5000+ MWs of domestic simple cycle projects in last 7-8 years, about 70% of MWs were GE. Of GE machines, about 35-40% of MWs were LM6000, 40% were 7FAs, 5-10% were 7EAs, and 15-20% were 6Bs.
3	LeCG	Do not include additional costs that would be needed to place the generator in a combined cycle configuration (either now or in the future). Run sensitivity cases to determine if margins on sale of energy and ancillary services would offset additional cost.	Will not include costs needed to place generator in combined cycle configuration
4	LeCG	ROS locations should be lower Hudson Valley, capital region, and Western NY	Data for the three locations will be obtained for Poughkeepsie and Yonkers for lower Hudson Valley; Albany for the capital region; and Syracuse for other areas of the state.
<b>Design of Units</b>			
5	IPPNY KeySpan LeCG	Turbine should have dual fuel capability (IPPNY, KeySpan). Capital cost should include all storage and piping facilities constructed to applicable environmental codes (KeySpan). Turbine should have single fuel capability; evaluate dual fuel capability as sensitivity case (LeCG)	S&L Environmental staff is evaluating requirements related to dual fuel capability.
6	IPPNY LeCG	Observe Minimum Oil Burn rule for dual fuel units on LI and NYC, which increases operating costs for periods	S&L will investigate applicability; NERA will apply findings in estimation of energy and ancillary service

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		when operation on oil is required (IPPNY). Assume that NYISO rules that would mitigate these higher cost operating scenarios are in place so that there is no need to adjust the analysis (LeCG)	revenues
7	KeySpan	More reasonable to develop a gas compressor cost based on relative supply pressure than to assume that no compressors are required.	The need for gas compression will depend on available supply pressure at a specific site. In the absence of site specifics, a pressure could be assumed for which gas compressors can be specified and a cost estimate developed. Need a source of data for supply pressure. In absence of data, will continue with current assumption that no compressors are required.
8	IPPNY	Observe provisions of Con Edison's S.C. 9 gas transportation service for NYC power generators if bypass is not assumed. Or include the capital costs for bypass facilities.	The desirability and design of bypass facilities will depend on site specific economics. Need a specific situation to determine whether bypass facilities are needed. In absence of specifics, will continue with current assumption to include gas transportation costs in FOM and VOM.
9	IPPNY	Verify that a switchyard bay is available at an appropriate location for NYC.	If a switchyard is identified and information available on its configuration, an estimate can be prepared. In the absence of a basis for switchyard costs, continue to assume an existing switchyard is available.
10	IPPNY	Select appropriate locations in NYC and LI to avoid additional costs associated with NYISO deliverability standard currently under development	The cost of facilities needed to physically connect will be included in capital costs. Off-site facilities that may be required as a result of transmission flow studies are dependent on the proposed site and equipment. In the absence of a basis for interconnection costs other than the cost to physically connect, continue to assume that only the cost of on-site facilities to physically connect will be included in capital costs.
11	IPPNY KeySpan	Reflect interconnection costs of the type required under Attachment S of the NYISO Services Tariff (IPPNY). Reasonable, representative interconnection cost must be developed (KeySpan)	
12	Meeting	Review NYS environmental regulations that are expected	S&L Environmental staff is reviewing.



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	Notes	to be in place to implement CAIR and CAMR, and adjust designs appropriately.	
13	IPPNY KeySpan	LM6000 not eligible for TMNSR. SCR needed to meet environmental requirements, and requires longer than 10 minutes to warm up to avoid short term exceedances of applicable emissions standards. Could add costs associated with continually pre-heating the ammonia consumed by the SCR to achieve 10 minute startup (IPPNY).	S&L Environmental staff is investigating requirements for SCRs. If an LM6000 needs an SCR, it will not be eligible for TMNSR. Continually preheating ammonia for an SCR requires a heat source with associated capital costs (package boiler?) and operating costs (fuel). Do not anticipate that TMNSR revenues would justify the cost, but could calculate it if necessary.
<b>Plant Performance Assumptions</b>			
14	KeySpan	Heat rates should be based on operational experience	Operating data is dependent on how units are operated and maintained. It is not possible to assure that observed heat rates that might be obtained from a large database (e.g., Platts) are representative of what a new entrant peaker will experience. Revised Plant Performance Assumptions show heat rates with degradation prior to major maintenance at average high conditions and for highest temperature (from vendor sources). Propose to use average of clean and degraded (before major mtn) heat rates at average high conditions.
15	IPPNY	Verify with NYISO the temperatures for each of the three regions to determine gas turbine capacity	Summer and winter temperatures have been obtained for identified locations for 1971-2000 from NOAA databases. Capacity will be shown for maximum high, average high, average low, and ISO conditions.
16	Meeting notes	Add minimum run times to the performance table. Annual CF should be adjusted to reflect location.	Capacity factor, hours of operation, minimum run times, and number of starts per year are addressed in update to financial assumptions regarding VOM.
<b>Cost Estimate of Peaking Unit</b>			
17	LeCG	Reliance on vendor quotes should be limited, and	In the absence of bid data from an RFP, S&L will obtain

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		verified against costs incurred in actual projects whenever possible	both vendor quotes and translate costs from historical projects if possible. Differences will be noted and explained.
18	LeCG	Define “cost to attract labor”	“Cost to attract labor” is incentive pay to assure that sufficient labor can be hired when needed, and will be retained as long as necessary to complete the project.
19	Meeting Notes	Reconsider assumption to use the same unit material costs at each location.	The cost of engineered items, such as equipment, should not vary by location. Non-engineered items, such as concrete, rebar, sand, earthfill, etc., are purchased locally. Shipping costs can be a large component of the cost of non-engineered materials. S&L has state factors and/or area factors that can be used to adjust the cost of non-engineered materials to reflect location. S&L will search for a credible source of local factors that could be applied to reflect site differences. In the absence of a credible source, the same material costs may have to be used for each site.
<b>Financial Analysis to Determine Levelized Cost</b>			
20	IPPNY NRG LeCG	General comments on the financing assumptions: Long term equilibrium vs 2008-11 Non-recourse debt financing with no parental guarantees vs balance sheet financing Term (20 years) Debt/equity ratios	NERA to address
21	KeySpan	Assumed NYC property tax rates are lower than used in previous study	NYC rates and assessment ratios have been updated using the latest values from NYC website.
22	LeCG	Taxation assumptions should reflect the likelihood that new facilities will receive Empire Zone tax rate reductions	Application of Empire Zone tax rate reductions is site and situation specific. The amount of property tax reduction is based on a formula that considers job

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			creation, wages and benefits, or investments made in the zone. Do not have a basis for site and case assumptions unless one is provided.
23	KeySpan LeCG	No VOM quoted; how will VOM be estimated?	Assumptions have been updated to show how VOM is estimated.
24	KeySpan	Representative fixed and variable rates for LDC and Pipeline charges should be developed	Assumptions have been updated to show pipeline charges.
25	IPPNY	Variable costs should include: <ol style="list-style-type: none"> <li>1. CT hot gas path overhaul</li> <li>2. CT major overhaul</li> <li>3. SCR catalyst replacement</li> <li>4. Borescope inspections</li> <li>5. Water</li> <li>6. Chemicals</li> <li>7. Consumables</li> <li>8. Spare parts</li> <li>9. BOP maintenance</li> </ol>	Assumptions have been updated to include these items.
26	LeCG	Explain how interest during construction is calculated	The before-tax real Weighted Average Cost of Capital is compounded over the time period from the midpoint of the construction duration to the in-service date. The resulting percentage is applied to all direct and indirect capital costs to yield the interest during construction.
27	LeCG	How will FOM be estimated?	Assumptions have been updated to show how FOM is estimated.
28	Meeting Notes	Consider adding sensitivity case to examine potential implementation of a tariff forcing generators to pay a demand charge for station service power when not generating. Case is in the courts and not likely to be approved	This can be considered if implementation is likely.



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29	LeCG	Provide sources for data in assumptions tables	Sources are specified where confidentiality agreements permit or do not apply. Staff judgment on likely value and ranges is applied to cover the range of S&L project experience.