Independent Power Producers of New York, Inc.

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To: John Charlton

From: Glenn D. Haake

Date: May 11, 2004

Re: Preliminary Comments on Levitan & Associates, Inc. (LAI) Draft Demand Curve Report

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As a follow up to the April 22, 2004 ICAPWG meeting, IPPNY would like to present the following information and issues for consideration as LAI prepares to issue its draft demand curve update report (Report). At that meeting, LAI specifically requested market participant input concerning (1) the appropriate gas turbine (GT) technology for the statewide ICAP demand curve (DC), (2) the amount of property taxes that should be incorporated into the model, and (3) the length of the permitting process applicable to facilities in New York State. In addition to providing information on those matters, IPPNY would like to call to your attention several issues and cost categories that it believes were not reflected in the LAI model as described at the last ICAPWG meeting.

1. <u>GT Choice</u>

LIA asked whether the Frame 7 or the LM6000 is the better choice for GT technology under the statewide DC. IPPNY polled its members and unfortunately at this point no clear consensus has been reached on which unit is most appropriate for the upstate region. IPPNY does agree with LAI that the LM6000 unit is the appropriate technology for the NYC GT.

2. <u>Property Taxes</u>

As you know, when we developed the original demand curves, we thoroughly examined the issue of the property tax levels in New York as compared to New England and the need to modify the E-Acumen study to reflect the higher property taxes for New York State. The E-Acumen report assumed a property tax cost equal to $6/kW-year. Based upon information provided to the NYISO by several of IPPNY's members and reviewed by NYPSC staff, it was determined that the appropriate figure to reflect NYS property taxes was $14/kW-year. IPPNY believes that, at a minimum, this amount is still appropriate and should be employed in the LAI model.

3. <u>Permitting Period</u>

Based on the experience of IPPNY's members that actually have secured Article X permits for new generation facilities, IPPNY believes the LAI study assumptions with respect to the time required for permitting are unjustifiably short. Moreover, as IPPNY has consistently stated, in the absence of an Article X-like one-stop-shopping permit process, permitting new generation will be materially more costly and time-consuming than it was under Article X. Furthermore, given permitting uncertainty in general, and particularly, in NYS and the change in the willingness of developers to take on risks, IPPNY does not believe it is realistic to assume that a project developer will order its major equipment prior to receipt of required permits and approvals. This further expands the development time-frame. Accordingly, IPPNY believes that the LAI study should reflect a 36-month period to prepare suitable permit applications and complete the process of obtaining all necessary environmental and zoning permits.

In addition, although the permitting costs were not broken out in the materials supplied for the April 22 ICAPWG meeting, we strongly suspect that the cost associated with obtaining required permits and approvals is significantly understated in the LAI model. Accordingly, IPPNY would request that LAI include line items showing the permitting costs it has assumed when it issues its upcoming draft report. IPPNY further requests that LAI revise its permitting costs to reflect an appropriately defined permitting time frame as referenced above.

4. Use of Sprint Technology and Assumed Increased Capacity

The LAI study assumes for purposes of calculating the NYC GT cost that two LM6000 units will be paired and will employ inlet fogging and water injection cooling technology known as Sprint, which increases the capacity from these units to a reported average of 94 MW. IPPNY believes the numbers contained in the LAI study assumptions are inaccurate. For example, the 96 MW gross, 92 MW net figure for summer conditions appears unrealistically high. The LM6000PC Sprint has a gross rated output, per the attached GE Manual, of 50.08 MW at ISO conditions. ISO conditions are 59F, 60% relative humidity at sea level. Assuming only a 2 MW per unit degradation for summer conditions is overly optimistic. A realistic summer output for two LM6000PC Sprints would be around 88 MW gross, which would equate to approximately 80 MW or less on a net basis. We should also note that if Sprint is used, it will be necessary to account for the approximate 0.2-0.3 MW loss per unit associated with the backpressure caused by a selective catalytic reduction (SCR) unit on the back end for NOx control. Accordingly, we believe that further work is required to evaluate the MW impact of incorporating Sprint technology.

In addition, IPPNY has questions concerning the use of this configuration and believes that additional research into the feasibility and economic viability of using this technology in New York State must be conducted before it is assumed in the LAI model. We note that recently installed LM6000 units have not included the Sprint technology, although it has been available. It is our understanding that this technology requires substantial consumption of de-mineralized water and associated water storage capacity. In addition, employing Sprint increases carbon monoxide emissions, which may present permitting difficulties. It also increases O&M costs for a project and adversely affects the life cycle of a unit. In at least one instance that we know of, one of IPPNY's members evaluated the use of Sprint on a Rest of State site and found it infeasible on a cost basis at its facility, owing to infrastructure requirements and the approximately $1 million increase in capital costs for Sprint. Thus, while Sprint technology may be feasible at some locations, it may not be a technology that is economically feasible at all locations. As a result, we have real doubts about the appropriateness of including this technology and the associated increase in capacity for the purposes of the demand curve study without additional evaluation.

Finally, IPPNY believes the total installed cost of $1,124 per kW for New York City is unreasonably low. Experience has indicated that this cost may fairly represent installed costs in the mid-west US, but that NYC installed costs are more realistically on the order of $1,600/kW or more.

5. Emission Reduction Credits

One very significant cost category that appears not to have been included in the LAI study assumptions is the cost of emission reduction credits (ERCs) that are needed in order to obtain required certificates to proceed with a project in New York. No separate line item is reflected in the capital cost assumptions presented by LAI to account for needed ERCs, and the values for the categories that are reported do not appear large enough to have included this substantial expense. Here again, IPPNY requests that the cost categories assumed in the LAI model be set forth in greater detail in the upcoming draft report so that parties may confirm the inclusion of all relevant components and the reasonableness of the associated cost assumptions.

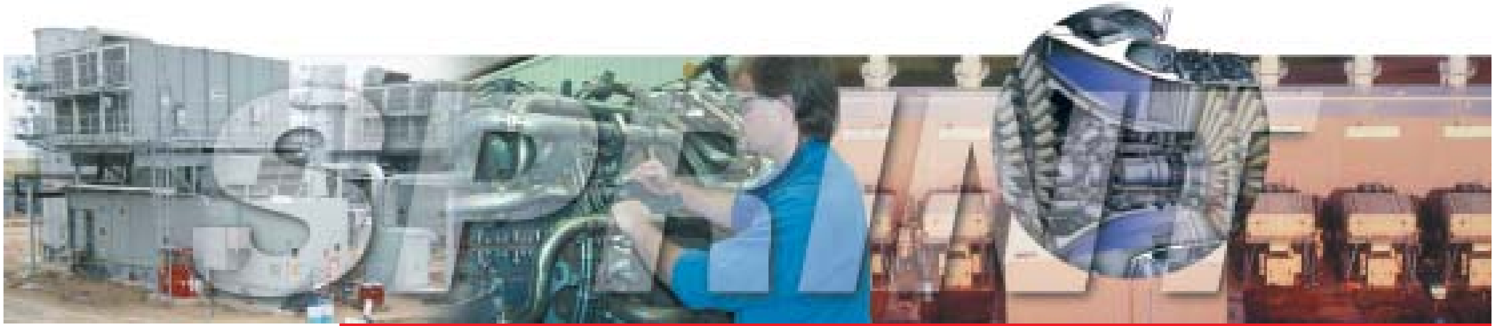
6. Transmission System Upgrade Facilities

A second significant cost component that appears not to have been included is the cost of transmission system facility upgrades (SUFs) allocated to new generation facilities pursuant to Attachment S of the NYISO OATT. For the inaugural class year 2001 (CY01) projects, this expense amounted originally to approximately $72 million. With cost overruns reported by Con Edison in March of last year, this cost has increased roughly 75% to over $124 million.

Moreover, as the CY01 cost allocation report approved by the NYISO establishes, these costs are not allocated solely to facilities located within NYC. That report shows that new facilities sited in the lower Hudson Valley, where the vast majority of the new generation not planned for NYC and LI is proposed to be sited, also are allocated a portion of these SUF costs. Moreover, pursuant to Attachment S, future projects that make use of the headroom created by the CY01 projects must reimburse CY01 members for the costs incurred in creating this new capacity. Thus, the LAI study should incorporate a line item to reflect liability for SUF costs.

7. Social Justice Costs

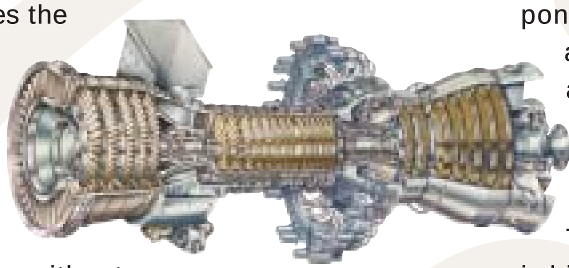
Finally, the LAI study assumptions appear not to include any recognition of so called social justice costs that developers must incur to gain approval of their projects. Developers in New York routinely are required to make substantial contributions to local communities for parks, school buildings and other similar local benefits. IPPNY requests that LAI include a line item for these expenses.



LM6000 SPRINT™ Gas Turbine Generator Set

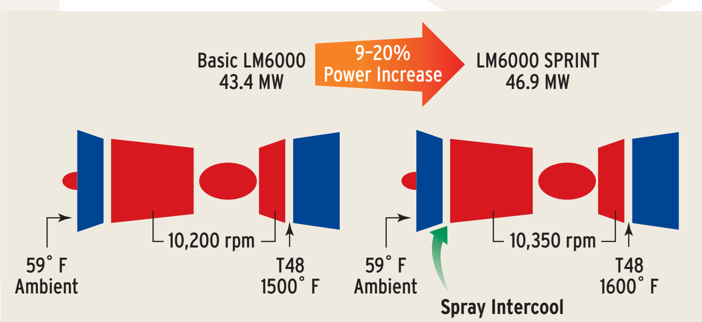
The Inter-cooled Engine that Increases Power Output

The LM6000 SPRINT™ combines the best simple-cycle heat rate of any industrial gas turbine in its class today with a spray inter-cooling design that significantly increases the mass airflow by cooling the air during the compression process. The result is more power, a better heat rate and a gas turbine without any increase in maintenance costs.



The Hotter It Gets, The More Effectively It Runs

SPRINT's™ effectiveness is even more pronounced in hot weather—power output is increased by 9% at ISO and is increased by more than 20% on 90˚ days. It is like having an evaporative cooler built within the gas turbine. As ambient temperature rises, the benefits of a SPRINT™ engine become more significant.



The SPRINT™ Solution

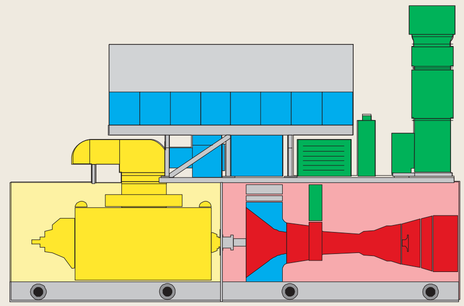
The SPRINT™ system is based on an atomized water spray injected through spray nozzles into the compressor. Water is atomized using high-pressure air taken off of eighth stage air bleed. The water-flow rate is metered, using the appropriate engine control schedules.

The SPRINT™ Solution at Work

On high-pressure ratio gas turbines such as the LM6000, the compressor discharge temperature is often the criteria that limits power output because compressed air is used to cool the hot section components. By pre-cooling the LM6000 compressor with a mico-mist of water, the compressor inlet temperature and outlet temperature are significantly reduced. Thus, the compressor outlet temperature limitation is reduced allowing the LM6000 to operate on its natural firing temperature control. The result is higher output and better efficiency.

SPRINT 60-Hz Generator Sets

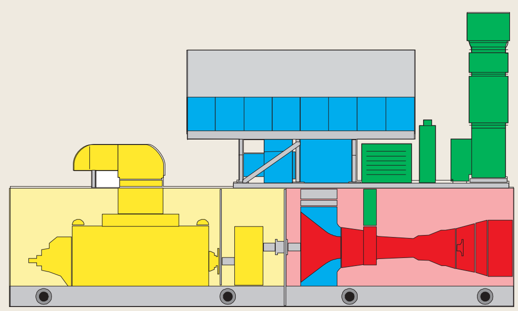
Base Plate Length	56' 6"	(17.22 m)
Base Plate Width	13' 6"	(4.11 m)
Enclosure Height	14' 6"	(4.42 m)
Overall Length	56' 9"	(17.30 m)
Overall Width*	49' 9"	(15.16 m)
Overall Height*	36' 2"	(11.02 m)
Base Plate Foundation Load*	476,000 lb	(214,200 kg)



	Power kW	Heat Rate Btu/kWh LHV	Heat Rate kJ/kWh LHV	No. Shafts	Pressure Ratio	Shaft Speed rpm	Exhaust Flow lb/s	Exhaust Flow kg/s	Exhaust Temp. °F	Exhaust Temp. °C
LM6000PC SPRINT*	50080	8434	8916	2	30.9	3600	295	134	826	441
LM6000PC	43417	8112	8549	2	29.1	3600	281	127	831	444
LM6000PD SPRINT	46824	8235	8688	2	30.7	3600	290	131	837	447
LM6000PD	42336	8308	8765	2	29.3	3600	278	126	846	452
LM6000PD (liquid fuel)	40212	8415	8878	2	28.1	3600	268	122	857	458
LM2500PK	30676	8834	9300	2	23.6	3600	192	87.1	958	514
LM2500PV	30463	8854	9069	2	22.6	6100	186	84.3	931	499
LM2500PH**	27763	8391	8775	2	20.2	3600	167	75.9	926	497
LM2500PE	22719	9311	9789	2	19.1	3600	153	69.4	992	533

SPRINT 50-Hz Generator Sets

Base Plate Length	64' 7"	(19.69 m)
Base Plate Width	13' 6"	(4.11 m)
Enclosure Height	14' 6"	(4.42 m)
Overall Length	64' 10"	(19.76 m)
Overall Width*	49' 3"	(15.01 m)
Overall Height*	37' 11"	(11.56 m)
Base Plate Foundation Load*	522,000 lb	(234,900 kg)



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LM6000PC SPRINT*	50041	8461	8961	2	31.0	3627	297	135	821	438
LM6000PC	42890	8173	8617	2	29.1	3627	282	128	825	441
LM6000PD SPRINT	46902	8272	8739	2	30.9	3627	292	133	834	446
LM6000PD	41711	8374	8846	2	29.3	3627	279	127	838	448
LM6000PD (liquid fuel)	40376	8452	8917	2	28.5	3627	272	123	853	456
LM2500PK	29244	9177	9675	2	22.8	3000	193	87.7	967	519
LM2500PV	30349	8577	9069	2	21.5	6100	186	84.3	931	499
LM2500PH**	26463	8673	9080	2	19.4	3000	168	76.2	932	500
LM2500PE	21719	9653	10141	2	18	3000	154	69.8	1000	538

Mechanical-Drive Sets

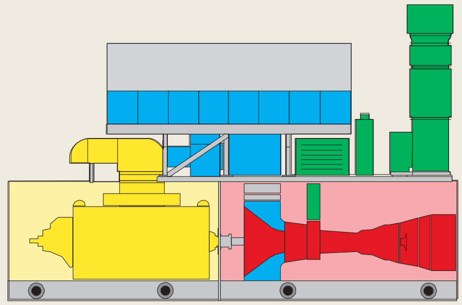
	Heat Rate Btu/kWh LHV	No. Shafts	Pressure Ratio	Shaft Speed rpm	Exhaust Flow lb/s	Exhaust Flow kg/s	Exhaust Temp. °F	Exhaust Temp. °C
LM6000PC	5941	2	29.1	3600	281.9	127.8	825	440
LM2500PK	6442	2	22.5	3600	192.0	87.1	958	514
LM2500PV	6187	2	21.5	6100	186.0	84.3	931	499
LM2500PE	6773	2	22.8	3600	153.0	69.4	992	533

Note: Performance based on 59° F amb. Temp. 60% RH, sea level, no inlet/exhause losses on gas fuel without NOx media, unless otherwise specified.

*SPRINT 2002 deck is used with water injection to 25ppmvd for power enhancement

**Rating includes use of 50,000 lb/hr steam injection.

SPRINT™ 60-Hz Generator Sets



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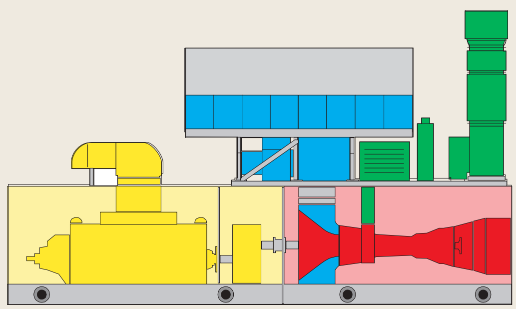

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