

Attachment 3

**Response to NRC's Request for Additional Information Regarding License Transfer Application**

**Request Two)** Page 8 of the application contains the revenue and expense projections for years 2001–2005. It is unclear from the application whether these projected revenues are those for Entergy Nuclear IP2 or are the revenues that ENO expects to obtain. Clarify to which entity the provided projections apply.

Response Two) The revenue and expense projections shown on page 8 of the application are those of Entergy Nuclear IP2 (ENIP2), although they do contain the expenses (e.g., payroll, accounts payable) that ENIP2 will pay for services provided by Entergy Nuclear Operations (ENO). ENO is a zero income company since it bills out all its costs.

**Request Three (a))** Page 8 of the application contains a statement that, "Entergy Nuclear IP2 and ENO expect to operate IP2 at an average annual capacity factor of 85%." The average annual capacity factor for IP2 from 1994 – 1999, as determined from values listed in NUREG-1350, was 66.15% (this value does not incorporate the extended shutdown in 2000 for steam generator repairs/replacement). Therefore, considering the historical performance of the IP2 unit, provide a justification for using an 85% average annual capacity factor in the revenue projections that were included in the application.

Response Three (a)) Improved capacity factors for IP2 over the next five years are anticipated. The historical IP2 capacity factor is unlikely to represent future performance. Entergy is an experienced nuclear operator with a corporate commitment to maintaining and improving its core competency in nuclear operations. Entergy has been increasing the scale of its nuclear operations, in part based upon its significant successful experience in improving the operation of nuclear power stations. Under Entergy management, the operations of Indian Point 2 (IP2) would be expected to improve to a level approximating Entergy's performance unless there was a technological (e.g., design basis) or operational (e.g., environmental) restriction which prevented the improvement. Entergy has reviewed the status of Indian Point 2 and has not identified such a restriction.

Moreover, IP2's current owner, Con Ed, has invested in many capital improvements in recent years, which will help improve the plant's performance. These improvements include the following:

- › Installation of a new plant simulator
- › Replacement of steam generators
- › Replacement of all three main condensers with modular titanium tubes and tubesheets
- › Replacement of the main feedwater heaters
- › Installation of new optimized high-pressure turbine rotor
- › Installation of new river water traveling screens with fish return system
- › Installation of new radiation monitors
- › Installation of new state-of-the-art passive auto-catalytic hydrogen recombiners
- › Upgrade of turbine extraction steam piping

These capital improvements by Con Ed, along with future capital additions and improvements planned by Entergy, will help ensure that Entergy is able to safely operate IP2 at the targeted performance levels. There is also a clear industry trend to better plant performance, as the following table illustrates:

Industry Capacity Factor Statistics (%)										
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Average (Mean)	70	71	72	75	78	76	71	80	86	90
Median	75	76	76	81	81	80	83	85	89	--

Sources: (a) For 1991 – 1998: POWERdat; (b) For 1999: Nuclear Energy Institute (NEI) [NEI also reported a mean capacity factor of 90% for 2000, but did not list enough information to calculate the median in 2000.]

The following table provides Indian Point 2's average annual capacity factor from 1991-1999:

Indian Point 2 Annual Capacity Factor (%)								
1991	1992	1993	1994	1995	1996	1997	1998	1999
46.8	95.4	71.9	92.6	59.1	93.5	37.7	29.5	88.5

Sources: (a) For 1991 – 1998: POWERdat;

As seen in the above table, from 1994 to 1999 Indian Point had three years of greater than 85% capacity factor. In 1995, the low capacity factor was the result of a refueling outage that lasted 123 days, and in 1997 the refueling outage lasted 72 days. An extended outage beginning in 1997 and continuing through most of 1998 was performed to address a backlog of equipment problems, as well as programmatic and performance concerns identified by an independent safety assessment and by the NRC. Having addressed these issues, there is no reason why IP2 should not operate as well as Indian Point 3 (IP3) once Entergy practices are established at the site. The proximity of IP3, which is already undergoing this transition to Entergy practices, will help substantially.

**Request Three (b)** Provide revenue factors, values, and other appropriate details, including assumptions made, which were used in the revenue calculations in order to verify that operation of IP2 at an average annual capacity of 85% will yield the yearly revenues that are projected in the application. Also, list all revenue inputs (e.g., fees, service charges, or other revenue sources) that are included in the projections.

**Response Three (b)** An energy-only Power Purchase Agreement (PPA) through 2004 at an average price of \$39/MWh has been included in the revenue calculations. Capacity-only prices for 2001-2004 were included as well as market all-in prices for 2005. No other sources of revenue (e.g., fees, service charges, etc.) were modeled.<sup>1</sup> The following table contains the detailed revenue projections:

<sup>1</sup> In an April 2, 2001 press release announcing the termination of the merger between Entergy Corp. and FPL Group, FPL Group called into question certain financial projections of Entergy Corp. The claims by FPL Group are not accurate and have no impact on the financial qualifications of ENIP2 or ENO. The financial projections submitted as part of the application continue to be reasonable and prudent forecasts of the likely financial condition of the project.

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**Request Four)** On page 9 of the application, it is stated that, in the event of an extended shutdown, fixed operating expenses will be paid from retained earnings, as available, or by the lines of credit established with Entergy Global Investments, Inc. and Entergy International Ltd. LLC. The NRC staff notes that the retained earnings provided in Enclosure 9 to the application, "Projected Financial Statements for Entergy Nuclear IP2," for the years 2003 – 2005, when combined with the lines of credit, would be insufficient to cover the fixed operating expenses projected for these years, as provided on page 9 of the application. Explain how fixed operating expenses would be covered, in the event of an extended outage, during the years 2003 – 2005.

Response Four) While the additional financial assurance represented by the lines of credit is not required from a regulatory standpoint<sup>2</sup>, in the event of an extended shutdown, the lines of credit could be used as needed to pay fixed operating costs until a decision could be made to either shut down the plant or invest additional funds in the project. Given the competitive demands of a deregulated environment, this decision would be made early in the shutdown period. We believe that the lines of credit would be sufficient to pay fixed operating costs until that decision was made, and to get the plant to a safe shutdown should the decision be made to permanently shut down the facility. The lines of credit would be sufficient to pay fixed operating costs for over four months in 2003 and 2004 and for five and a half months in 2005. In addition, revenues from accounts receivable would continue to be received for at least a month after shutdown.<sup>3</sup>

The fixed operating expenses provided in the application represent Entergy's conservative assumption that reducing the routine forward-going fixed costs at the site will take several years. However, should the IP2 plant cease operations, Entergy would have substantial flexibility in the forward-going costs and operations within the IP2 plant because of the presence of the IP3 plant.

It is also expected that retained earnings would be available, if needed, to pay costs during an extended shutdown. The Projected Financial Statement for Entergy Nuclear IP2 (ENIP2) is a conservative projection which assumes that all retained earnings are paid as dividends to ENIP2's parent corporation. This conservative assumption-that there would no need to retain earnings during the first five years of the project-can be adjusted if circumstances dictate a need to retain funds to safely operate the plant. The table below shows the accumulated retained earnings that would be available if no dividends were paid.

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<sup>2</sup> GPU Nuclear, Oyster Creek Nuclear Generating Station, CLI-00-06, 51 NRC 193, 205 (2000); Vermont Yankee Nuclear Power Corp., CLI-00-20 (October 6, 2000). The Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance ("SRP") (NUREG 1577, Rev.1) provides that non-electric utility applicants are financially qualified if they can demonstrate they have reasonable assurance of obtaining the funds to meet projected operating costs over the first five years of operation. The SRP directs the reviewer to inquire into the source of funds to pay fixed costs during a six-month outage only after concluding that the applicant fails this test and is not financially qualified. We believe the Application amply demonstrates that the Applicants meet the financial qualifications test, and this inquiry is not required by the regulations.

<sup>3</sup> In addition, payments for installed capacity sold would continue during a period of shutdown so long as the plant remained certified as an installed capacity provider by the NYISO. Those installed capacity payments, which are shown in the table in response to Request 3 (b), total [REDACTED] in 2003 and [REDACTED] in 2004.

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Indian Point 2 Retained Earnings (Dollars in Thousands)	2001	2002	2003	2004	2005
Retained Earnings with No Dividends Paid					

Request 5) Provide a copy of your detailed decommissioning funding calculations, including assumptions used, which demonstrate that the proposed \$430 million fund transfer will meet the requirements of 10 CFR 50.75 for both IP1 and IP2. Calculations should use escalation factors based on NUREG-1307, Revision 9, which is available through the NRC internet website at <http://www.nrc.gov/NRC/NUREGS/indexnum.html>.

Response 5) On November 9, 2000, Con Edison and ENIP2 entered into an agreement for the sale and transfer of Indian Point 1 and 2 nuclear plants which provides for the transfer of \$430 million of decommissioning trust funds at closing. ENIP2 and ENO will assume full responsibility for the decommissioning of Indian Point 1 and 2 post-closing.

For the purpose of responding to this Request, ENIP2 has calculated the period of cost escalation and earnings growth through the end of license of IP3 (December 2015), which is the earliest time Entergy intends to begin decommissioning all three Indian Point units. There are obvious economies and efficiencies of scale which would be realized from decommissioning the plants simultaneously. In addition, the plants share a number of systems (e.g., water and sewage treatment facilities) which would make decommissioning the plants separately more costly and more difficult from a practical standpoint.

The NRC minimum for decommissioning IP1 and IP2 using NUREG-1307, Revision 9, in 2000 dollars is \$571.5 million (\$264.6 million for IP1 and \$306.9 million for IP2). Using an inflation rate of 3.09%<sup>4</sup>, the amount needed to decommission IP1 and IP2 at the end of the present license term of IP3 is \$902.1 million. When that amount is discounted at a rate of 5.09% (which results in an assumed earnings growth of 2%), the amount of funds needed for IP1 and IP2 in 2001 to meet that minimum at the end of IP3's license is \$428.4 million.

Request 6) "Enclosure 7 to the application includes a copy of the Inter-Company Credit Agreement between Entergy Global Investments, Inc. and Entergy Nuclear IP2 for a \$20 Million line of credit. Explain the conditions under which this line of credit would be terminated."

Response 6) The Credit Agreement is for a term of five (5) years from the effective date (the effective date has yet to be established but will be established when the Credit Agreement is signed prior to closing). The line of credit is renewable every two (2) years thereafter by the mutual consent of Entergy Global Investments, Inc. (EGI) and ENIP2. The line of credit may be terminated early only if it is declared null and void or if its enforceability is contested. It is not anticipated that the Credit Agreement would be terminated after the initial five-year term

<sup>4</sup> The earnings and inflation rates have been adjusted slightly since filing the application to reflect our latest estimate of the probable inflation rate.

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unless it was no longer needed because sufficient earnings had been retained by the project to meet working capital needs.