

**Alliance for a Green Economy, Citizens Awareness Network,
Pilgrim Watch, Vermont Citizens Action Network**

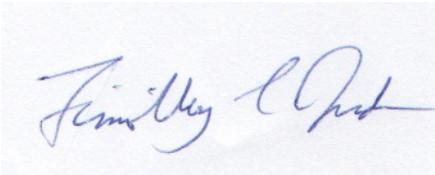
April 23, 2013

Mr. Bill Borchardt
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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Mr. Borchardt:

Alliance for a Green Economy, Citizens Awareness Network, Pilgrim Watch, and Vermont Citizens Action Network, hereafter referred to as “the petitioners,” submits the enclosed and attached information as a supplement to our March 18 emergency enforcement petition.



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**PETITION TO THE U.S. NUCLEAR REGULATORY COMMISSION
REQUESTING ENFORCEMENT ACTION AGAINST ENTERGY NUCLEAR
OPERATIONS, INC.; ENTERGY NUCLEAR FITZPATRICK, LLC; ENTERGY
NUCLEAR VERMONT YANKEE, LLC; AND ENTERGY GENERATION CO.**

April 23, 2013

Alliance for a Green Economy, Citizens Awareness Network, and Vermont Citizens Action Network (hereafter, “the petitioners”) hereby submit this supplement to our March 18, 2013 Petition for Emergency Enforcement Action (hereafter, “the petition”) to the US Nuclear Regulatory Commission (NRC). In the petition, the Petitioners request that the NRC suspend licenses Nos. DPR-59 and DPR-28 (hereafter, “the licenses”), the operating licenses for the James A. FitzPatrick Nuclear Power Plant (hereafter, “FitzPatrick”) and the Vermont Yankee Nuclear Power Station (hereafter, “Vermont Yankee” or “VY”). The petitioners also request NRC begin an investigation to determine whether the operating license for the Pilgrim Nuclear Power Station (hereafter, “Pilgrim”), license No. DPR-35, must also be suspended.

The petitioners have obtained additional information on Entergy’s financial projections and the economic circumstances confronting its operation of the subject plants in the petition. Specifically, the petitioners have obtained further reports issued by UBS Investment Research (hereafter, “UBS”), which provide more in-depth analyses of Entergy’s merchant nuclear business, including plant-specific financial projections, all attached as exhibits:

- “Re-Evaluating Merchant Nuclear” (January 2, 2013)
- “In Search of Washington’s Latest Realities: DC Fieldtrip Takeaways” (February 20, 2013)
- “Nuclear Decommissioning Discussion with the NRC Staff: Conference Call Transcript” (April 9, 2013)

This information proves that Entergy is operating Vermont Yankee and FitzPatrick in violation of NRC financial qualifications requirements and heightens the need for NRC to take emergency enforcement action to protect the public health and safety.

Summary

As detailed below, the financial circumstances under which Entergy is operating Vermont Yankee, FitzPatrick, and potentially Pilgrim is precisely the kind of situation that NRC's financial qualifications requirements are intended to prevent. The information in these documents reveals the following:

1. FitzPatrick and Vermont Yankee face substantial cash flow deficits and financial distress for the foreseeable future
2. UBS's cost estimates omit large known and anticipated capital expenses at FitzPatrick and Vermont Yankee, inclusion of which would deepen projected cash flow deficits
3. UBS's analyses assume very high performance levels and reveal extreme sensitivity to modest regulatory and tax cost increases
4. Accelerated onset of decommissioning liabilities is a strong disincentive to shutting down the plants
5. Other asset management, market and policy considerations impair Entergy's ability to prioritize safe operations and/or make a rational decision to shut down the plants

In total, this new information demonstrates that the licensees have no reasonable expectation of generating sufficient revenue to safely operate and maintain FitzPatrick and Vermont Yankee, making closure of the plants the only rational safety decision. However, Entergy faces conflicting pressures affecting its asset management decisions that impair its ability to prioritize safe operations and to make the decision to close these reactors. It is imperative that NRC step in and do what Entergy is not capable of, by terminating Entergy's licenses to operate FitzPatrick and Vermont Yankee, and determine whether Pilgrim's (8) Event Reports since January 2013 are reflective of its negative financial status.

1) FitzPatrick and Vermont Yankee face substantial cash flow deficits and financial distress for the foreseeable future

In its January 2, 2013 report, UBS includes five-year cash flow projections for Vermont Yankee and FitzPatrick, covering the five-year period 2012-2016. Significantly, NRC

requires licensees to submit five-year cost-and-revenue projections in its standard financial qualifications reviews. UBS’s calculations reveal substantial and growing free cash flow (FCF) deficits for both reactors through 2016.

UBS Free Cash Flow Projections (\$ million)¹

	2012	2013	2014	2015	2016	Total
FitzPatrick	1	-12	-20	-55	-49	-135
Vermont Yankee	32	-19	-13	-38	-39	-77

These figures indicate that annual cash flow deficits are likely to increase by factors of three to four by 2016. FitzPatrick faces operating deficits averaging \$34 million per year during this period. What is more, UBS estimates that FitzPatrick’s 2012 FCF was only \$1 million – break-even, for all intents and purposes, despite enjoying higher electricity prices than UBS anticipates for the following years. This razor-thin financial margin suggests Entergy has already been under severe financial pressure to minimize outage time and maintenance costs at FitzPatrick. This sheds additional light on the performance problems petitioners cite in the petition, and suggests a strong nexus between Entergy’s financial qualifications and its failure to address equipment reliability problems proactively at FitzPatrick.

Going forward (2013-16), UBS projects Vermont Yankee faces operating deficits averaging \$27 million, growing to nearly \$40 million in 2016. These projections show 2012 to be an outlier compared to Entergy’s financial qualifications going forward. What is more, UBS appears to have underestimated a new tax on electrical generation in Vermont by nearly \$5 million per year. UBS lists the electrical generating tax as \$8 million per year,² though the tax rate (\$2.50/MW-hr) is generally estimated to raise at least \$12 million per year.³ This reduces FCF at Vermont Yankee by at least \$4 million

¹ Dumoulin-Smith, Julien, Jim von Riesmann, and Andrew Gay. “Re-Evaluating Merchant Nuclear.” UBS Investment Research. January 2, 2013. Pages 7 and 9.

² Ibid. Page 7.

³ Smallheer, Susan. “Judge dismisses Entergy suit over generating tax on Yankee.” *Rutland Herald*. October 26, 2012.

<http://www.rutlandherald.com/apps/pbcs.dll/article?AID=/20121026/NEWS02/710269903>

per year, revising UBS's annual and four-year (2013-16) FCF projections, respectively, to deficits of \$31 million and \$125 million.

These projected cash flow deficits are quite substantial, at \$34 million and \$31 million per year, averaging well over 10% of annual revenues. In order to satisfy financial qualifications requirements, it is necessary not only for the reactors to remove that deficit and break even, but to ensure that the licensee can absorb unanticipated expenses or performance shortfalls. As indicated below, UBS's projections are not conservative in this regard, omitting known major capital expenses and assuming consistently high plant performance.

2) UBS's cost estimates omit large known and anticipated capital expenses at FitzPatrick and Vermont Yankee, inclusion of which would deepen projected cash flow deficits

UBS highlights the impact of capital expenditures (capex) on the economics of merchant nuclear plants.⁴ This is a significant aspect of UBS's recent analyses: the recognition that capex plays a much larger and more significant role in the finances of nuclear plants than it does in competing industries like coal and natural gas power plants. While this fact may be well-understood within the nuclear industry, its importance in evaluating the performance of merchant generation companies has not come into focus for the investment community until now. As noted in the petition, the implications of this for Entergy's share price valuation and investment rating have been largely negative, amplifying the pressure on Entergy to reduce negative cash flows and shore up investor confidence.

Operating margin, or EBITDA (earnings before interest, taxes, depreciation, and amortization), is used as the primary measure of asset performance for fossil fuel units; however, capital expenditures are taken into account last in cash flow accounting. This is significant in nuclear plant asset evaluation due to two factors: the fact that nuclear fuel

⁴ Dumoulin-Smith, et al. "Re-Evaluating Merchant Nuclear." Pages 2-4.

expenditures are more appropriately classified under capex;⁵ and the significantly greater cost of components and maintenance for nuclear plants.⁶ UBS's plant-specific analyses are based on aggregate cost estimates Entergy provided for its entire merchant generation fleet. UBS estimates plant-specific maintenance capex by assigning a proportional amount of this total cost estimate to each plant, based on the generation capacity of the plant.⁷ Absent plant-specific data, the methodology is reasonable, but in this case it leads to an inaccurate picture of FitzPatrick and Vermont Yankee's financial prospects.

As described in the petition, Vermont Yankee is known to require replacement of the main condenser in the 2015-16 timeframe, at an estimated capital expenditure of \$100-\$150 million. In addition, FitzPatrick's main condenser has exhibited even more severe reliability problems than has Vermont Yankee's in the last year. Entergy appears to have decided to "run it until it breaks," which has contributed significantly to FitzPatrick's degraded safety performance in the Initiating Events cornerstone. While Entergy has not stated an intent to replace FitzPatrick's main condenser, all evidence suggests the company must if it expects to continue operating the plant and sustaining the high productivity levels necessary to do so economically. Thus, these two plants alone may account for \$200-300 million in capex during the 2013-15 period, a disproportionately large share of the total cost relative to the rest of Entergy's merchant nuclear plants. Assuming Entergy accounted for those costs as annually amortized expenses over a ten-year period, one would expect to see an increase of \$10-15 million per year for each plant, beginning in the year that plant's condenser was replaced. UBS's capex projections for FitzPatrick and Vermont Yankee exhibit no such increase.

On a related matter, the role of post-Fukushima upgrades heightens safety concerns arising from Entergy's failure to remain financial qualified. While UBS estimated that the cost of requirements under consideration by NRC at \$50-60 million per reactor,⁸ it

⁵ Ibid. Page 2.

⁶ Ibid. Page 4.

⁷ For instance, out of Entergy's 4,998 MW of generation capacity in its merchant nuclear fleet, FitzPatrick comprises 838 MW, or 16.8% of the total. UBS estimates FitzPatrick capex costs as 16.8% of the total merchant nuclear capex each year.

⁸ Ibid.

predicted the commission’s decision to exempt the industry from one of the most capital-intensive upgrades recommended by NRC staff:⁹ filters for hardened containment bypass vents at Mark I and II boiling water reactors (BWRs), accounting for half or more of the total industry-estimated cost cited above.¹⁰ As an annual amortized cost, this expense would be quite manageable for financially qualified licensees – and significantly less than other major one-time maintenance projects, such as steam generator or main condenser replacements.

This fact notwithstanding, after meeting with NRC, UBS stated its belief that industry economic considerations would be the primary factor in the commission’s decision not to require vent filters, over and above nuclear safety rationales on the basis of which NRC staff recommended them: “A nearer term mild positive is our belief NRC is likely not to require filtered vents *given their material expense* early next week”¹¹ (emphasis added). It would be most troubling if UBS’s assessment of the commission’s thinking on this matter were correct. If the NRC is curtailing safety regulations to decrease the economic impact on licensees that are *already* not financially qualified to operate their reactors – as UBS shows Exelon and Entergy are at Clinton, FitzPatrick, Ginna, and Vermont Yankee, and suggests may be the case at Pilgrim – this will have set a dangerous precedent and lead to increased industry pressure on the agency to reduce “regulatory burden,” further undermining the agency’s ability to protect the public health and safety.

3. UBS’s analyses assume very high performance levels and reveal extreme sensitivity to modest regulatory and tax cost increases

UBS’s revenue estimates are based on optimal plant performance assumptions, including historically high capacity factors. This is clear by simply converting the generating capacity and generation output figures in UBS’s cash flow projections to capacity factors. UBS assumes a 93.9% average annual capacity factor for FitzPatrick for 2013-16:

⁹ Dumoulin-Smith, Julien, Jim von Riesmann, Andrew Gay. “In Search of Washington’s Latest Realities (DC Fieldtrip Takeaways).” UBS Investment Research. February 20, 2013. Page 5.

¹⁰ NOTE: All of the reactors at issue in the petition are Mark I BWRs, virtually identical in design to Fukushima units 1-4.)

¹¹ Dumoulin-Smith, Julien, et al. “In Search of Washington’s Latest Realities (DC Fieldtrip Takeaways).” Page 1.

UBS Plant Performance Projections for FitzPatrick¹²

	2013	2014	2015	2016	Average
Capacity (MW)	838	838	838	838	838
Generation (GWh)	7,194	6,591	7,194	6,591	6,893
Capacity Factor	98.0%	89.8%	98.0%	89.8%	93.9%

These figures appear to be based on FitzPatrick’s performance during the previous two refueling cycles, in which Entergy operated the reactor without shutting down between refuelings. However, UBS’s projections do not reflect the recent performance problems as reflected in the plant’s 2012 performance measures, which may well have stemmed from the company’s decision to forego maintenance that would require shutting the reactor or extend refueling outages to conduct additional maintenance. UBS estimates FitzPatrick’s 2012 output as 5,873 GWh.¹³ That amounts to an 80.0% annual capacity factor for 2012, and a five-year (2012-16) average annual capacity factor of 91.1%. If FitzPatrick’s performance during the 2013-16 period were to fall just modestly short of UBS’s projections to the 91% level, FitzPatrick’s revenue decreases by 3%, or roughly \$36 million. The plant’s average annual cash flow deficits would increase accordingly by \$8-10 million per year, to \$43 million.

UBS Revenue and Cash Flow Projections for FitzPatrick (\$ Million)

	2013	2014	2015	2016	Total
UBS Revenue Projection	326	292	287	269	1,174
Revenue at -3% Av. Output	316	283	278	261	1138
UBS Free Cash Flow	-12	-20	-55	-49	-136
FCF at -3% Av. Output	-22	-29	-64	-57	-172

¹² Dumoulin-Smith, Julien, et al. “Re-Evaluating Merchant Nuclear.” Page 9.

¹³ Ibid.

This analysis assumes costs remain the same, which would likely not be the case if maintenance expenses rise along with outage time, due to replacement of unreliable equipment. UBS does not provide comparably detailed output data in its Vermont Yankee projections, but its analyses of other plants in UBS’s January 2 report do. All of UBS’s projections include capacity factor assumptions above 90%.

UBS Performance Projections for Other Merchant Nuclear Plants¹⁴

	R. E. Ginna	Clinton	Nine Mile Point
Plant Capacity (MW)	581	1,078	1,564
2013-16 Generation (TWh)	18.54	34.8	53.0
Av. Annual Capacity Factor	91.1%	92.1%	96.7%

We expect that UBS utilizes similar performance level projections in its analyses of Vermont Yankee. Therefore, UBS’s revenue and free cash flow projections are likely best-case scenarios for both plants, rather than the kind of sensitivity-tested projections that NRC typically relies upon for assessing licensees’ financial qualifications.

Furthermore, the licensees’ sensitivity to cost and revenue fluctuations is not limited to capital expenditures and output shortfalls. UBS’s analysis demonstrates that the plants in question are so unprofitable that modest cost increases are now perceived as major risks. For example, UBS cites the electrical generation tax on Vermont Yankee as a “particular risk” to the plant’s viability, even while underestimating the amount of the tax as detailed above: “in particular, we see particular risk should the state succeed in continuing to implement a generator tax of ~\$2.50/MWh on the plant.”¹⁵ Entergy is now engaged in lawsuits over the Vermont generation tax and a local property tax assessment on FitzPatrick, in order to stave off any new or increased tax expenses.

While highlighting the threat of modest cost increases on these plants, UBS points out that the economic conditions of the plants are so poor that incremental decreases in their

¹⁴ Ibid. Pages 6, 11, and 12.

¹⁵ Ibid. Page 7.

tax responsibilities are insufficient to turn things around, as indicated in its evaluation of Exelon's R. E. Ginna plant in New York:

The plant also received a property tax adjustment in 2009, to reflect the weakened outlook to a reduced \$8.6-8.9 Mn annually, translating to \$15/kW-yr. While clearly a relevant factor, the underlying economics of a small unit likely overwhelm any benefits from reduced property taxes paid.¹⁶

These evaluations are not inconsistent with one another – rather, they underline the central reason NRC must enforce its financial qualifications regulations and terminate Entergy's licenses to operate FitzPatrick and Vermont Yankee. Entergy is managing these assets in “triage” conditions, under extreme pressure to avoid any additional cost or revenue shortfall and prevent further damage to shareholder value and investor sentiment.

4. Accelerated onset of decommissioning liabilities is a strong disincentive to shutting down the plants

UBS highlights the onset of decommissioning liabilities as a strong disincentive for Entergy and other merchant nuclear plant operators to opt for closure, even when it is otherwise in the best interests of nuclear safety and the company as a whole. The firm notes that the industry has largely managed to allay previous concerns about decommissioning trust fund shortfalls through the relicensing process, which has enabled licensees to add twenty years of investment returns to the valuation of the funds.¹⁷ However, NRC is updating its decommissioning cost estimates this year, which will be released in late 2013 along with current reports from licensees on the value of the decommissioning trust fund for each reactor. Due in part to the cost of waste disposal rising faster than that of inflation, NRC's revised estimates are expected to be larger than those projected in 2011.¹⁸

As a result, some plants' decommissioning funds that were considered sufficient may be found to have shortfalls. Licensees would then need to “true up” the funds for those reactors, through one of NRC's approved methods:

¹⁶ Ibid. Page 8.

¹⁷ Dumoulin-Smith, Julien, et al. “In Search of Washington's Latest Realities (DC Fieldtrip Takeaways).” Page 2.

¹⁸ Ibid. Pages 1-2.

- Making incremental contributions to the fund over a defined period of time.
- Making a lump sum payment to the fund.
- Obtaining insurance or a surety bond.
- Providing a “parent company guarantee” – a promise to pay – via a letter of credit or comparable instrument reviewed and approved by NRC.¹⁹

While Vermont Yankee’s and FitzPatrick’s decommissioning funds appear to be sufficient to avoid these eventualities now, UBS notes that a decision to close the plants could change that.²⁰ What is more, within two years after an unanticipated plant closure, licensees must submit a site-specific decommissioning cost estimate along with a Post-Shutdown Decommissioning Activities Report (PSDAR). Site-specific cost estimates typically exceed NRC minimum requirements, amplifying such concerns.

As a general concern about merchant nuclear plants, UBS sees the prospect of plants closing many years before their extended licenses expire potentially leading to substantial liabilities, acting as a disincentive to closure:

Accelerated retirements of nuclear units would reduce the ability to accrue funds on NDT [nuclear decommissioning trust fund] by remaining life on operating license. As a reminder, some units were able to able to mitigate the impact of the financial downturn on their NDT funding through the receipt of 20-year license extensions, providing a further accrual period. *In contrast, we see the potential added funding liability of retiring nuclear units as among other potential factors incentivizing units currently projected to be free cash flow negative to continue operating.*²¹ (emphasis added)

Thus, licensees such as Entergy could find their plants entering decommissioning before the plants’ trust funds have grown to the minimum level required by NRC. While Entergy and other licensees have announced their intentions to mothball reactors for fifty years or more to allow decommissioning funds to accrue, UBS also notes that strategy

¹⁹ NOTE: The parent company guarantee is only a deferral of one of the other options. NRC requires such guarantees to be renewed each year, through an application and review by NRC. Eventually, either the licensee will need to actually make up for the shortfall or the parent company will need to fulfill the promise to pay.

²⁰ Ibid. Also, Dumoulin-Smith, et al. “Challenging Outlook for New Team at Kickoff.” Page 2.

²¹ Dumoulin-Smith, et al. “In Search of Washington’s Latest Realities (DC Fieldtrip Takeaways).” Page 2.

may not be entirely successful because states may sue to challenge such decisions and force decommissioning to proceed sooner.²²

The potential for early closure decisions to result in decommissioning liabilities on the order of tens or hundreds of millions of dollars may compromise nuclear safety by incentivizing Entergy to continue operating plants when it is no longer qualified to do so safely. Such a conflict between NRC's financial qualifications and decommissioning funding assurance requirements may not have been contemplated by the agency before now. Nevertheless, the letter and intent of the financial qualifications regulations are clear, and their function in protecting the public health and safety is a more immediate imperative than Entergy's balance sheets.

5. Other asset management, market and policy considerations impair Entergy's ability to prioritize safe operations and/or make a rational decision to shut down the plants

UBS's reports highlight several other financial concerns confronting Entergy that undermine the licensees' ability to ensure the safe operations of FitzPatrick and Vermont Yankee. Entergy must sort through conflicting considerations in order to serve its primary corporate prerogative to protect the interests of its shareholders, separate from nuclear safety. The purpose of NRC's financial qualifications regulations is to ensure that licensees do not face such conflict between compliance with SEC obligations and Wall Street and shareholder sentiment when making decisions affecting safety and compliance with NRC regulations: in essence, by requiring licensees to be financially qualified, the regulations are supposed to enable licensees to set safety first and avoid the complex and time-sensitive aspects of managing a major asset in distress, and the concomitant pressures to enforce cost containment and reduction and to sustain productivity in order to minimize losses.

In addition to the issue of decommissioning liability above, there are at least two other competing concerns impinging on Entergy's decision to close FitzPatrick and Vermont

²² Ibid.

Yankee. Furthermore, there is a political incentive to postpone for a year or longer committing to a particular course of action – whether to close them, or to invest in their continued operation with safety and reliability upgrades – while continuing to operate them in a financially unqualified condition. First, there is a positive incentive for Entergy to close the plants. UBS points out that Entergy’s merchant power business faces problems generating free cash flow for the foreseeable future, and that closing FitzPatrick and Vermont Yankee would improve FCF and lift Entergy’s earnings per share (EPS).²³ This may produce better long-term results for company performance, but is only one aspect of the overall, fundamental problems Entergy must resolve with its merchant nuclear business related to decommissioning liabilities, market volatility, and political and regulatory uncertainties.²⁴

At the same, UBS warns that shareholders and investors could react negatively to a decision to close one or more plants, regardless of the upside to FCF and EPS.²⁵ Specifically, UBS believes the decision to close the plants would likely decrease investor sentiment and result in a lower share price for Entergy, particularly in the near term.²⁶ Given the general slide in Entergy’s share price and investment ratings over the last several months, further downward movement would be even more unpalatable. Coupled with the above concerns about possible decommissioning shortfalls resulting from retirement of the plants, Entergy may also fear that declining sentiment and share price would be more than a short-term concern.

UBS and trade publications have pointed to potential policy and political solutions to rescue FitzPatrick, Vermont Yankee, and/or other distressed plants.²⁷ UBS notes that recent market volatility could prompt NEISO to forbid Vermont Yankee from closing, perhaps leading to a more lucrative capacity contract. In New York, UBS speculates that

²³ Dumoulin-Smith, Julien, Jim von Riesmann, Andrew Gay. “Re-Assessing Cash Flows from the Nukes.” UBS Investment Research. January 2, 2013. Page 1.

Dumoulin-Smith, et al. “Challenging Outlook for New Team at Kickoff.” Pages 1-2.

²⁴ Dumoulin-Smith, et al. “Challenging Outlook for New Team at Kickoff.” Page 2.

²⁵ Dumoulin-Smith, et al. “Re-Assessing Cash Flows from the Nukes.” Page 1.

²⁶ Dumoulin-Smith, et al. “Re-Evaluating Merchant Nuclear.” Pages 1-2

²⁷ Ibid. Pages 1, 7, 8, and 10.

the threat of job losses may be enough to leverage approval of above-market bilateral contracts or inflated capacity contracts. In addition, while several power plants in Central and Western New York are simultaneously at risk of closure, the first plants that close may spur a rise in market electricity prices. Between all of these factors, Entergy may gamble that delaying a decision to close FitzPatrick would buy time for another solution. However, Entergy is not in a good position to negotiate such a deal on its own, as a result of its conflicts with the states of Vermont and New York.²⁸ At the same time, UBS points out that Exelon could wait to retire Ginna until 2015, since its power purchase agreement with Rochester Gas & Electric (RG&E) does not expire until June 2014.²⁹ Entergy could have to wait a substantial amount of time before knowing whether it can expect any financial relief. In addition, Entergy has new corporate leadership who may not be prepared to make major decisions like retiring power plants so early in their tenure, although they have admitted to problems with the company's merchant nuclear business.³⁰ The possibility that Entergy, left to its own volition, could delay making a decision for months or years while operating FitzPatrick and Vermont Yankee in violation of financial qualification standards must be avoided.

While UBS's analyses suggest Entergy is better off closing one or both reactors, as part of a broader strategy for managing the risks posed by its merchant nuclear portfolio, they also make clear that there need be no such uncertainty to the benefits of closure through enforcement action. In fact, the impact of closure on Entergy's finances need not be significant, even if it results in decommissioning liabilities. UBS makes it clear that Entergy's Indian Point plant is generating sufficient positive cash flow to compensate for FitzPatrick's shortfalls:

Despite weak upstate economics, we remind investors that downstate power economics are vastly different—and much healthier, particularly should NYISO move ahead with the implementation of a new Lower Hudson Valley (LHV) capacity zone in early 2014 (likely resulting in distinctly higher capacity payments, at roughly the average between the Rest of State, and New York City price). Additionally, power prices in the region are set on the margin by relatively inefficient oil and gas plants, resulting in robust heat rates. We estimate the

²⁸ Dumoulin-Smith, et al. "Challenging Outlook for New Team at Kickoff." Page 3.

²⁹ Dumoulin-Smith, et al. "Re-Evaluating Merchant Nuclear." Page 13.

³⁰ Dumoulin-Smith, et al. "Challenging Outlook for New Team at Kickoff." Page 2.

negative cash flows generated by Fitzpatrick are more than offset by Indian Point.³¹

In addition, a 2012 analysis of Indian Point's profitability commissioned by New York State Assemblymember James Brennan estimates that Indian Point generates revenue over \$400 million per year greater than the total cost of operating the plant.³² This free cash flow margin is more than enough to compensate for any decommissioning liabilities arising from closure of FitzPatrick and Vermont Yankee. What is more, any new decommissioning liabilities accruing to Entergy from such action may actually be less than the free cash flow deficits Entergy would have to sustain by continuing to operate the plants.

Conclusion

In addition to the information presented in the March 18, 2013 petition, the petitioners have obtained further information detailing the full extent to which Entergy is operating FitzPatrick and Vermont Yankee in violation of NRC's financial qualifications requirements. Specifically, the scale of Entergy's cash flow deficits at FitzPatrick and Vermont Yankee are quite substantial, and not easily remedied by improvements in any one factor. In addition, it is clear that UBS's projections represent best-case scenarios, based on fleetwide average capital expenditures and optimal production levels. UBS's analysis reveals the plants' economic conditions face even greater vulnerabilities than the already large projected cash flow deficits, related to legal and policy developments, additional maintenance costs, and production shortfalls. Further, Entergy is unable to guarantee safety in its management of the plants under these conditions, due to competing legal obligations to shareholders and investors and economic consequences to the parent company that may flow from a decision either to close the plants or make the necessary investments to continue operating them. The additional uncertainty and timeframe for

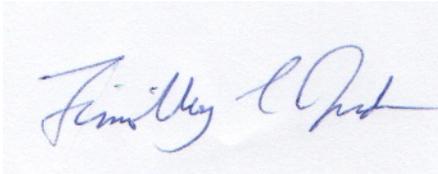
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³² Cheng, Na. "Deregulation of Electric Generation in New York State and Excess Profits for Power Producers: the Case of the Entergy Corporation and the Indian Point Energy Center." June 3, 2012. Prepared for New York Assemblymember James Brennan and submitted as exhibit to Assem. Brennan's Comments to the State of New York Public Service Commission, dated July 30, 2012. http://assembly.state.ny.us/member_files/044/20120823/index.pdf

other legal, market, and policy developments that could affect the plants incentivizes Entergy to continue operating FitzPatrick and Vermont Yankee in violation of NRC regulations. Furthermore, this is an important case where NRC enforcement action to revoke Entergy's licenses to operate FitzPatrick and Vermont Yankee both protects the public health and safety and the economic interests of the company.

Therefore, the licensees must not be allowed to endanger the public health and safety as a result of the fact that Entergy is not financially qualified to operate Vermont Yankee and FitzPatrick, and possibly Pilgrim, per 10 CFR 50.33(f)(2). NRC must suspend the FitzPatrick and Vermont Yankee licenses to prevent further violations, per 10 CFR 110(a)(3), and investigate Entergy's financial qualifications to continue operating Pilgrim, per 10 CFR 50.33(f)(5).

Jointly signed on behalf of the petitioners:



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