

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petitions for approval of an)	DOCKET NO. 870098-EI
increase in the accrual of nuclear)	
decommissioning costs by Florida)	ORDER NO. 21928
Power Corporation and Florida Power)	
& Light Company.)	ISSUED: 9/21/89
)	

The following Commissioners participated in the disposition of this matter:

- MICHAEL MCK. WILSON, Chairman
- THOMAS M. BEARD
- BETTY EASLEY
- GERALD L. GUNTER
- JOHN T. HERNDON

APPEARANCES: JAMES MCGEE, Esquire, 3201 34th Street, South, P. O. Box 14042, St. Petersburg, Florida 33733
On behalf of Florida Power Corporation.

MATTHEW CHILDS, Esquire, and CHARLES A. GUYTON, Esquire, Steel, Hector & Davis, 215 S. Monroe, First Florida Bank Building, Suite 601, Tallahassee, Florida 32301-1804
On behalf of Florida Power and Light Company.

M. ROBERT CHRIST, Esquire, Florida Public Service Commission, Division of Legal Services, 101 East Gaines Street, Tallahassee, Florida 32399-0863
On behalf of the Commission Staff.

PRENTICE P. PRUITT, Esquire, Florida Public Service Commission, General Counsel, 101 East Gaines Street, Tallahassee, Florida 32399-0862
On behalf of the Commissioners.

FINAL ORDER

BY THE COMMISSION:

By Order No. 10987, issued July 13, 1982, in Docket No. 810100-EU(CI), this Commission required the establishment of a separate funded reserve, apart from the reserve for

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FPSC-RECORDS/REPORTING

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depreciation, for the accumulation of the estimated costs of decommissioning each nuclear unit operating in Florida. In particular, the Commission found that decommissioning cost estimates "should be reviewed and, if necessary, changed no less often than every five years." Pursuant thereto, on January 26, 1987, Florida Power Corporation (FPC) filed an updated nuclear decommissioning study for its Crystal River Unit 3 nuclear plant, accompanied by a petition seeking approval of a revised annual accrual to its nuclear decommissioning reserve, based on the cost estimates and funding assumptions developed in the study. Similarly, on April 20, 1988, Florida Power & Light Company (FPL) filed nuclear decommissioning studies for its St. Lucie Nuclear Units 1 and 2, accompanied by a petition seeking approval of revised annual accruals to its nuclear decommissioning reserve. On June 29, 1988, FPL filed nuclear decommissioning studies for its Turkey Point Nuclear Units 3 and 4 and revisions to its studies on the St. Lucie Units 1 and 2. Also, on June 29, 1988, FPL filed a petition seeking approval of these revised annual accruals to its nuclear decommissioning reserve for the Turkey Point Nuclear Units and the amended revised accruals for its St. Lucie Nuclear Units.

On May 5, 1987, the Commission initiated a full revenue requirements rate proceeding with respect to FPC (Docket No. 870220-EI) and included the pending issue of FPC's nuclear decommissioning costs for consideration in that proceeding. As a result of a settlement subsequently approved by the Commission in that docket (Order No. 18627), FPC's annual accrual to its decommissioning reserve was increased by \$4.3 million effective January 1, 1989, together with a corresponding increase in base rates.

Pursuant to notice, a Prehearing Conference was held in this Docket on May 4, 1989, establishing the issues to be addressed. Hearings were held on May 25, 1989.

SUMMARY OF ISSUES

A number of the issues identified in this proceeding required specific Commission rulings so the Internal Revenue Service (IRS) will have adequate information to determine the appropriate decommissioning costs to be considered for tax purposes. Those are Issues 4, 6, 7-11, 20, 21, 26 and 27 as found in the Prehearing Order (Order No. 21245) and will be

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discussed later in this Order. The determination of future decommissioning costs, the appropriate annual accrual, and associated revenue requirements directly result from our decision on the contingency allowance, and the appropriate escalation rates. Our findings on these two issues will affect the resultant calculations made in Issues 6, 8, 10, 26 and 29.

FINDINGS, DISCUSSIONS AND CONCLUSIONS

The following findings, discussions and conclusions are dispositive of the issues raised in this proceeding.

TREATMENT OF NON-CONTAMINATED COMPONENTS AND FACILITIES COSTS

Our Staff included as an issue in this proceeding, the appropriate treatment to be afforded parts of a nuclear plant which can be classified as non-contaminated. There was no argument that a nuclear plant contains components and facilities which are not contaminated with nuclear radiation. The prime issue was whether the decommissioning costs associated with these non-contaminated components and facilities should be excluded from the total nuclear decommission cost accrued by the utilities. The record of these proceedings does not provide us with sufficient evidence to answer that question at this time. We therefore will continue to allow the accrual of decommission costs for nuclear plants on a total plant basis. However, we agree with our Staff that a site-specific economic cost study should be performed by FPL and FPC for each of their nuclear generating plants to determine if it is cost justified to retain the non-contaminated portion of the nuclear plant assets for use with a new generating station. These studies shall be filed with the Commission within two years of the effective date of this Order. Depending on the outcome of those studies, the incorporation of their findings into the general pattern of nuclear and fossil fuel decommissioning/dismantlement studies will be determined.

CONTINGENCY ALLOWANCE

The decommissioning studies submitted by the utilities in support of their respective petitions contained an allowance for contingencies which may occur during the actual decommissioning activities. The utilities witness testified that an overall contingency factor of 25% is a reasonable

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amount given the complexity of nuclear decommissioning activities.

We find that the record does support a contingency factor of 25% and it is approved.

METHODOLOGY AND ESCALATION RATE

Both utilities use the same methodology to determine the escalation rate for converting the current estimated decommissioning cost to future estimated decommissioning cost. We find this method reasonable and approve its use. We are not accepting, however, in the aggregate, either the utilities' or the staff's escalation rates.

We agree with our Staff that the determination of escalation rates is subjective. We find the escalation rates FPL recommends for each of its nuclear plants to be reasonable and thereby approve them. We find the rate Staff has recommended for FPC's nuclear plant to be reasonable and therefore approve it. The approved escalation rates are as follows:

FPL:

Turkey Point No. 3	5.0%
Turkey Point No. 4	4.9%
St. Lucie No. 1	5.0%
St. Lucie No. 2	5.0%

FPC:

Crystal River No. 3	6.08%
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INVESTMENT STRATEGY FOR TRUST FUND AND MINIMUM EARNINGS RATE

The fundamental objective of a decommissioning trust fund is to ensure the availability of adequate financial resources to pay for decommissioning at the lowest cost to utility rate payers. The management of the fund, therefore, must be concerned with not only the preservation of contributions, but with the purchasing power of those contributions as well. Therefore, we find that the appropriate investment strategy for

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a nuclear decommissioning trust fund should ensure that each dollar contributed to the fund is available at the time of decommissioning and that the fund's assets earn a consistent positive real return over a market cycle.

As stated above, the objective of a decommissioning trust fund is to have enough money on hand at the time of decommissioning to meet all required expenses at the lowest cost to utility rate payers. However, while the previously approved investment strategy may produce adequate financial assurance that sufficient funds will be available for decommissioning, it cannot estimate with any accuracy what the fund earnings rate would or should be.

Both companies have raised logical arguments against the use of a minimum fund earnings rate. However, both companies have also conceded that it would be reasonable to charge them with the responsibility for maintaining the purchasing power of the contributions collected.

Rather than attempting to set a prospective minimum fund earnings rate which may or may not be reasonable under future economic conditions, we will require that the companies set aside funds sufficient to meet the Commission's best estimate of the decommissioning liability and require the companies to maintain the purchasing power as well as the principal amount of these contributions. The companies' investment performance will be evaluated along with all other decommissioning activities every five years. If it is found that the companies' investment earnings, net of taxes and all other administrative costs charged to the trust fund, did not meet or exceed the CPI average for the period, then we will consider ordering the utility to cover this shortfall with additional monies to keep the trust fund whole with respect to inflation. We therefore find a minimum fund earnings rate equivalent to the level of inflation over each five-year review period would be appropriate.

ASSUMED FUND EARNINGS RATE

Given that inflation will play such an important role in determining the future liability of a decommissioning trust fund, both companies agree that it is reasonable to charge them with the responsibility for ensuring that the contributions made to the fund earn at least the rate of inflation. This

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will ensure that the fund does not lose any of the purchasing power of the dollars contributed. We agree with our Staff recommendation that the companies be required to invest the decommissioning trust fund monies in such a way that the purchasing power as well as the actual contributions remain intact. According to utilities' testimony, DRI forecasts a long-term average CPI over the next 25 years of 5.27%. We therefore find that an appropriate fund earnings rate, net of taxes and all other administrative costs charged to the trust fund, to be used in this proceeding, is 5.27%.

PARTIES OWNING AN INTEREST IN THE NUCLEAR UNITS

According to testimony presented by FPL, St. Lucie Unit No. 2, is their only nuclear plant of which other parties own a portion. Participation agreements have been established so that each participant either contributes to the trust fund already established or establishes a separate fund to collect its ownership percentage of decommissioning costs.

FPC presented testimony that contracts are in place for the co-owners of CR3 to provide their proportionate share of the plant's decommissioning costs.

With no evidence to the contrary, we agree with our Staff and find that each company has made the necessary arrangements to ensure that all parties owning an interest in the nuclear units will provide their proportionate share of the associated decommissioning costs.

EFFECTIVE DATE FOR ADJUSTING THE ANNUAL ACCRUAL AMOUNTS

We approve the companies and Staff recommended effective dates for adjusting the annual accrual amounts. For FPL, the effective date is of January 1, 1989. For FPC, the effective date is January 1, 1990 which is consistent with our actions in Order No. 18627 in Docket No. 870220-EI.

ANNUAL ACCRUAL, JURISDICTIONAL REVENUE REQUIREMENTS AND BASE RATE CHANGES

Based on our decisions regarding the contingency allowance, escalation rates and an assumed fund earnings rate discussed previously in the body of this Order, the resultant annual accruals needed to recover the decommissioning cost of

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each nuclear unit and the associated jurisdictional revenue requirements we approve are shown on Schedule 1, as attached. Neither company requested to have its base rates adjusted in this proceeding to reflect any changes in revenue requirements associated with revised annual accrual amounts. We agree with the companies and our Staff that base rates should not be revised in this docket.

COMPLIANCE WITH NRC AND IRS REQUIREMENTS

As part of this proceeding, there were four issues addressing each company's compliance with NRC and IRS requirements as they pertain to control and management of the decommissioning trust funds. Each company presented testimony regarding these requirements. The NRC's final rule, 10 C.F.R. Section 50.75, specifies three methods acceptable to the NRC for electric utilities to use to demonstrate reasonable financial assurance that funds will be available for decommissioning. The rule permits the use of an external sinking fund, defines this type of fund as "an account segregated from licensee assets and outside licensee's administrative control", and elaborates by stating that such a fund "may be in the form of a trust, escrow account, government fund, certificate of deposit, or deposit of government securities". Each company presented testimony that its decommissioning funds are in the form of a trust with a trustee that is outside each company's administrative control. We therefore find that both companies meet these NRC requirements.

Unlike the issue of control, there is no specific wording in the NRC final rule pertaining to the management of investments of the decommissioning trust funds. FPL presented testimony that it employs an affiliate to manage the investments of its decommissioning fund. All companies are required by the NRC final rule to submit a report by July 27, 1990 indicating how the required financial assurance will be provided. At that time, the NRC will determine if FPL and FPC are in compliance with any implied requirements pertaining to the management of the investments of the decommissioning trust funds. At this time, we agree with our staff's finding that the companies are in compliance with such requirements.

IRS requirements pertaining to the control of the nuclear decommissioning funds only relate to funds qualified under Internal Revenue Code Section 468A and are silent as to how

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funds qualified under this Code Section are to be managed. Each company presented testimony that their respective trust is qualified under Florida law. We therefore agree with the companies and our Staff that the requirements mandated by IRS regulations for a qualified fund have been met.

FEE STRUCTURES ASSOCIATED WITH THE ADMINISTRATION AND
MANAGEMENT OF THE DECOMMISSIONING TRUST FUNDS

Each company's trust was established for the same purpose and have the same stated objective, however, the financial arrangements for the trusts differ.

As discussed earlier regarding IRS requirements, both companies use independent trustees to handle the administrative duties for the respective trusts. FPC employs an affiliate to manage the investments of its trust fund, whereas the investment manager's duties are performed internally for the FPL trust fund. While it appears that FPL paid significantly more than FPC for trustee services and that FPC paid significantly more than FPL for management services during 1988, we find neither company used fee structures that were unreasonable.

QUALIFIED VERSUS NON-QUALIFIED

The main difference between a qualified and non-qualified fund is the timing of the tax deduction. If a fund is qualified under the Internal Revenue Code Section 468A, the contributions to the fund are currently deductible. If the fund is not qualified, the deduction is allowed when decommissioning actually occurs. The revenue that is collected from the ratepayers for the cost of nuclear decommissioning is considered revenue for tax purposes in the year it is received whether the fund is qualified or non-qualified. The evidence presented in this case shows that the revenue requirements of a qualified or non-qualified fund are the same if the inflation and earnings rate are assumed to be the same and it is assumed that the tax rate remains constant. We recognize, however, that significant variations in earnings rate between a qualified and a non-qualified fund could affect revenue requirements. In addition, tax law changes that affect tax rates applicable to the fund and its earnings could also significantly increase or decrease revenue requirements.

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FPL and FPC qualified its nuclear decommissioning funds for 1984 through 1987 under Internal Revenue Service Code Section 468A in order to receive the benefit of tax deductions at a higher tax rate. We find this action to have been appropriate.

FPC qualified its fund in 1988 while FPL did not. FPL's decision was based on a belief that when the tax rate is low, the ratepayers are benefited more by the non-qualified funds. While there is no evidence to suggest that FPL's tax treatment is inappropriate, we agree with our Staff that the most conservative approach is for the companies to qualify their nuclear decommissioning trust fund in all years when that option is available. This is the most conservative way to guarantee that the necessary funds will be available at the time of decommissioning. While we will not order the companies to, prospectively, qualify their nuclear decommissioning trust funds pursuant to Section 468A of the Internal Revenue Code, the companies should take note that their decisions concerning tax elections in this regard will be closely examined in future proceedings. Each company will be required to justify its chosen tax treatment by identifying the benefits the ratepayers have received and will receive from that treatment.

IRS REQUIRED ISSUES

As discussed previously, there were a number of issues identified in this proceeding that required specific Commission rulings so the IRS would approve each utility's treatment of the decommissioning costs for tax purposes. Some of those issues have already been addressed in this Order. The remaining IRS issues are addressed below.

Decommissioning Methodology

The methodology we approve for FPC and FPL to utilize to decommission their nuclear units is as follows:

FPL:

- Turkey Point Unit No. 3: Integrated Prompt Removal/
Dismantling
- Turkey Point Unit No. 4: Integrated Prompt Removal/
Dismantling

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St Lucie Unit 1: Mothball/Prompt Integrated
 Dismantling

St. Lucie Unit 2: Integrated Prompt Removal/
 Dismantling

FPC:

Crystal River Unit 3: Prompt Removal/Dismantling

Cost of Decommissioning in Current Dollars

Based on our decisions regarding the contingency allowance and appropriate escalation rates, the estimated cost in current (January 1, 1989) dollars we approve as being needed to decommission each of the nuclear units are:

FPL:

Turkey Point Unit No. 3	\$162,771,355
Turkey Point Unit No. 4	191,133,750
St. Lucie Unit No. 1	206,262,473
St. Lucie Unit No. 2	\$203,421,665

FPC:

Crystal River Unit No. 3	\$189,123,000
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Total Estimated Cost of Decommissioning in Future Dollars

Again, based on our decisions regarding the contingency allowance, escalation rates, and an assumed fund earnings rate, the estimated total costs of decommissioning each nuclear unit in future dollars based upon present operating license termination dates are as follows:

FPL:

Turkey Point Unit No. 3	\$ 462,823,000
Turkey Point Unit No. 4	557,567,407
St. Lucie Unit No. 1	1,156,040,527
St. Lucie Unit No. 2	\$1,272,855,816

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FPC:

Crystal River Unit No. 3 \$1,201,528,228

We hereby approve these costs.

Years in Which the Nuclear Trust Funds Will be Expended

We agree with the companies and our Staff that, as presently planned, the funds accumulated in the Nuclear Decommissioning Trust Funds will be expended for each given unit in the following years:

FPL:

Turkey Point Unit No. 3	2005-2013
Turkey Point Unit No. 4	2005-2014
St. Lucie Unit No. 1	2014-2028
St. Lucie Unit No. 2	2021-2028

FPC:

Crystal River Unit No. 3 2015-2023

Future Costs of Decommissioning in Each Year Funds Will Be Expended

The estimated future costs of decommissioning, by unit, in each year in which decommissioning funds will be expended are shown on Schedule 2, as attached to this Order. We hereby approve these costs as reflecting our previous decisions regarding contingency allowance, escalation rates, and assumed fund earnings rate.

Projected Date Each Nuclear Unit Will No Longer be Included in Rate Base for Ratemaking Purposes

We agree with the companies and our Staff that the projected date that each nuclear unit will no longer be included in rate base for ratemaking purposes should be predicated on each unit's license expiration date. We

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therefore approve the following dates:

FPL:

Turkey Point Unit No. 3:	April 27, 2007
Turkey Point Unit No. 4:	April 27, 2007
St. Lucie Unit No. 1:	March 1, 2016
St. Lucie Unit No. 2:	April 6, 2023

FPC:

Crystal River Unit no. 3: December 3, 2016

Contributions to the Decommissioning Fund

As currently approved by the Commission, contributions to the decommissioning funds are made on a monthly basis. We agree with the companies and our Staff that there is no reason to change this current practice.

Cost of Service

We agree with the companies and our Staff that decommissioning expenses or accrual amounts should be included in the cost of providing service each year until each unit's operating license expiration date. This follows our current treatment of these costs. The accrual amount we are approving to be included for each unit is shown on Schedule 1, as attached to the body of this Order. This amount will be subject to subsequent to review at least once every five years and is to be reflected in expenses for surveillance and tax savings reporting purposes.

In consideration of the foregoing, it is

ORDERED by the Florida Public Service Commission that the petitions for approval of increases in the accrual of nuclear decommissioning costs by Florida Power Corporation and Florida Power & Light Company is granted as set forth in the body of this Order. It is further

ORDERED that all matter contained herein and/or attached hereto whether in the form of discourse or schedules are made intricate parts of this Order. It is further

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ORDERED that the site-specific economic cost studies referred to in the body of this Order shall be filed with the Commission within two (2) years of the effective date of this Order. It is further

ORDERED that this docket is closed.

By ORDER of the Florida Public Service Commission, this 21st day of September, 1989.

STEVE TRIBBLE, Director
Division of Records and Reporting

(S E A L)

MRC

by: Kay Helton
Chief, Bureau of Records

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.59(4), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request: 1) reconsideration of the decision by filing a motion for reconsideration with the Director, Division of Records and Reporting within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water or sewer utility by filing a notice of appeal with the Director, Division of Records and Reporting and filing a copy of the notice of appeal and the filing fee with

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the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

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SCHEDULE 1

ANNUAL ACCRUAL

	<u>COMMISSION APPROVED</u>
Turkey Point No. 3	\$ 8,981,734
Turkey Point No. 4	\$11,880,002
St. Lucie No. 1	\$ 9,005,366
St. Lucie No. 2	<u>\$ 7,647,984</u>
FPL Total	\$37,515,086
Crystal River No. 3	<u>\$11,188,360</u>
FPC Total	\$11,188,360

REVENUE REQUIREMENT

	<u>COMMISSION APPROVED</u>
Turkey Point No. 3	\$ 9,130,112
Turkey Point No. 4	\$12,076,260
St. Lucie No. 1	\$ 9,154,134
St. Lucie No. 2	<u>\$ 7,774,329</u>
FPL Total	\$38,134,835
Crystal River No. 3	<u>\$11,373,192</u>
FPC Total	\$11,373,192

**COMMISSION APPROVED
 ESTIMATED FUTURE COSTS OF DECOMMISSIONING
 IN EACH YEAR IN WHICH DECOMMISSIONING FUNDS
 WILL BE EXPENDED**

Turkey Point Plant

<u>Year of Decommissioning</u>	<u>Estimated Future Cost</u>	
	<u>Unit No. 3</u>	<u>Unit No. 4</u>
2005	\$ 1,042,744	\$ 562,080
2006	4,432,802	2,438,069
2007	28,236,782	20,082,719
2008	87,716,299	29,831,823
2009	116,491,808	99,503,112
2010	122,316,399	131,947,920
2011	61,931,060	138,413,368
2012	30,115,030	77,328,856
2013	10,540,077	45,521,851
2014		11,937,608
Totals	<u>\$462,823,000</u>	<u>\$557,567,407</u>

St. Lucie Plant

<u>Year of Decommissioning</u>	<u>Estimated Future Cost</u>	
	<u>Unit No. 1</u>	<u>Unit No. 2</u>
2014	\$ 1,634,753	
2015	6,410,849	
2016	68,854,249	
2017	24,649,991	
2018	10,980,937	
2019	11,529,984	
2020	12,106,483	
2021	12,711,807	\$ 1,122,586
2022	65,026,032	4,672,115
2023	221,961,919	53,920,290
2024	241,815,490	237,021,717
2025	253,906,264	306,142,644
2026	112,272,220	321,449,776
2027	103,153,384	200,065,173
2028	9,026,163	148,461,515
Totals	<u>\$1,156,040,527</u>	<u>\$1,272,855,816</u>

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Schedule 2
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COMMISSION APPROVED
ESTIMATED FUTURE COSTS OF DECOMMISSIONING
IN EACH YEAR IN WHICH DECOMMISSIONING FUNDS
WILL BE EXPENDED

Crystal River Plant

<u>Year of Decommissioning</u>	<u>Estimated Future Cost Unit No. 3</u>
2015	\$ 29,609,186
2016	31,409,425
2017	33,319,118
2018	264,177,471
2019	280,239,461
2020	297,278,021
2021	126,848,472
2022	67,279,726
2023	71,367,348
Total	<u>\$1,201,528,228</u> -----

The above amounts may not add due to rounding.