BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 070602-EI
FLORIDA POWER & LIGHT COMPANY

IN RE: FLORIDA POWER & LIGHT COMPANY'S PETITION TO DETERMINE NEED FOR EXPANSION OF ELECTRICAL POWER PLANTS

DIRECT TESTIMONY AND EXHIBIT OF:

CLAUDE VILLARD

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF CLAUDE ANTOINE VILLARD

DOCKET NO. 07 _____ - EI

SEPTEMBER 17, 2007

Q. Please state your name and business address.

A. My name is Claude Antoine Villard. My business address is 700 Universe Boulevard, Juno Beach, Florida, 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light (FPL or the Company) as Director, Nuclear Fuels.

Q. Please describe your duties and responsibilities in that position.

A. I am responsible for procurement, contract administration, reactor core design, fuel performance, accident analysis, and certain spent fuel storage matters for FPL's nuclear power plants.

Q. Please describe your educational background and professional experience.

A. I received a Bachelor of Science Degree in Nuclear Engineering from Lowell Technological Institute in 1974, and a Master Degree in Nuclear Engineering from the University of Lowell in 1976. I have more than 30 years experience in various technical and commercial aspects of the nuclear fuel cycle. I have also previously worked for a nuclear steam supply system vendor and two

electric utilities that owned and operated nuclear power plants with varying levels of responsibility. In my career, I have performed and managed a variety of fuel-related activities, including fuel supply strategy studies, market analyses, and price forecasts.

Q. Are you sponsoring any exhibits in this case?

A. Yes. I am sponsoring Exhibit CAV-1, Annual Nuclear Fuel Expense Projection, which is attached to my direct testimony.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide the projected nuclear fuel costs used in FPL's economic analysis of the proposed capacity uprates for FPL's four existing nuclear units.

Q. Please describe how you calculated the nuclear fuel costs that are used for FPL's economic analysis.

A. The nuclear fuel cost projections utilized in FPL's analyses are provided in Exhibit CAV-1. This exhibit documents the fuel cost scenario used for power uprate. The projections in this fuel cost scenario were calculated consistent with the method currently used for FPL's Fuel Clause filings, including the assumption of a fuel lease and the assumption of refueling outages every 18 months. The costs for each step to fabricate the nuclear fuels are added and capitalized to come up with the total costs of the fresh fuel to be loaded at each refueling (capitalized acquisition costs). The capitalized acquisition cost for each group of fresh fuel assemblies are then amortized over the energy produced by each group of fuel assemblies, and carrying costs are also added

on the total unrecovered costs to come up with the total fuel costs to be charged to customers. This projection calculation methodology was used for the first 5 years, and the fuel costs are then escalated at 2.5% per annum for the years starting with 2012. This escalation is consistent with our view of the nuclear fuel markets post-2010, when we expect the markets to return to fundamentals and prices to increase generally with inflation thereafter. FPL also includes 1 mill per kilowatt hour net to reflect payment to DOE for spent fuel disposal. .

Q. Does this conclude your testimony?

A. Yes.

Nuclear Fuel Cost - Reference Case
C/MBTU

Year	St Lucie #1	St Lucie #2	Turkey Pt #3	Turkey Pt #4
2007	44.19	46.10	42.59	42.32
2008	55.01	53.08	60.90	60.28
2009	64.47	56.61	68.09	64.48
2010	74.07	58.80	70.01	78.33
2011	78.23	75.95	76.25	78.76
2012	80.18	77.85	78.16	80.72
2013	82.19	79.80	80.12	82.74
2014	84.24	81.79	82.12	84.81
2015	86.35	83.84	84.17	86.93
2016	88.51	85.93	86.28	89.10
2017	90.72	88.08	88.43	91.33
2018	92.99	90.28	90.64	93.62
2019	95.31	92.54	92.91	95.96
2020	97.69	94.86	95.23	98.36
2021	100.14	97.23	97.61	100.81
2022	102.64	99.66	100.05	103.33
2023	105.21	102.15	102.55	105.92
2024	107.84	104.70	105.12	108.57
2025	110.53	107.32	107.75	111.28
2026	113.29	110.00	110.44	114.06
2027	116.13	112.75	113.20	116.91
2028	119.03	115.57	116.03	119.84
2029	122.01	118.46	118.93	122.83
2030	125.06	121.42	131.66	125.90
2031	128.18	124.46	197.03	154.86
2032	131.39	127.57	189.83	190.48
2033	134.67	130.76	0.00	199.15
2034	157.36	134.03	0.00	0.00
2035	225.82	137.38	0.00	0.00
2036	212.95	140.81	0.00	0.00
2037	0.00	144.33	0.00	0.00
2038	0.00	147.94	0.00	0.00
2039	0.00	151.64	0.00	0.00
2040	0.00	155.43	0.00	0.00
2041	0.00	159.32	0.00	0.00
2042	0.00	163.30	0.00	0.00
2043	0.00	167.38	0.00	0.00