

JEA Electric Five Year CAPEX projection

Asset Category	Manager	FY16	FY17	FY18	FY19	FY20
Substation & Transmission Projects	Garry Baker Russ Durham Ricky Erixton Michael Short	\$27,213	\$30,439	\$35,962	\$40,186	\$35,830
O&M Grid Projects	Ricky Erixton Jeremy Mathews	24,083	23,105	23,405	23,805	22,305
Generation Projects	Margaret Limbaugh	22,406	19,093	15,791	21,496	15,568
Distribution Projects	Garry Baker Russ Durham Ricky Erixton Matt Lundeen John Norse	20,563	11,441	11,931	5,747	4,507
Development	Ken Talley	5,000	5,000	5,000	5,000	5,000
Interagency Projects	John Norse	4,337	2,000	2,000	2,000	2,000
Protection & Control Projects	Darrell Hamilton	4,031	478	468	0	0
Streetlight Improvements	Thomas Ventresca	5,000	5,000	5,000	5,000	5,000
Total	(In \$1000s)	\$112,634	\$96,556	\$99,557	\$103,234	\$90,210

Five Year Capital Plan - Substation & Transmission Projects

Manager: Garry Baker

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
500 kV Transmission Line Upgrades	\$1,300	\$1,800				\$3,100
Energy Management System - EMS - Situational Awareness Mapboard Project	\$678					\$678
Energy Management System - EMS - Base Upgrade Project	\$183	\$130	\$130	\$130	\$130	\$703
Energy Management System - EMS - RTU Upgrade Project	\$147	\$50	\$50	\$50	\$50	\$347
	\$2,308	\$1,980	\$180	\$180	\$180	\$4,828

Five Year Capital Plan - Substation & Transmission Projects

Manager: Russ Durham

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Acquire property for 4th Network Substation	\$200	\$1,000				\$1,200
Southeast Substation Protection Improvement	\$67	\$23				\$90
Relay Work for Church Sub Switchgear Mods for Church to Main Street Substation Feeder Ties	\$22					\$22
Church St Sub Switchgear Modifications for Church to Main Feeder Ties	\$10					\$10
Nocatee 230 - 26 kV Substation		\$4,000	\$5,000	\$1,000		\$10,000
GEC to Nocatee 230 kV Circuit 911 Addition		\$1,887	\$1,886	\$1,386	\$500	\$5,659
Imeson 69 Auto TX removal; Firestone T3 replacement		\$1,800				\$1,800
Kennedy T-11 replacement		\$1,000				\$1,000
Lane T-1 Replacement		\$1,000				\$1,000
Dinsmore 230 - 26 kV Substation		\$860	\$6,020	\$3,870		\$10,750
Hartley Loop 230kv injection construction		\$250	\$15,000	\$15,000	\$15,000	\$45,250
Downtown 230/69 kv injection		\$250	\$250	\$12,000	\$12,000	\$24,500
Ft Caroline Substation Protection Improvement		\$119	\$34			\$153
Dinsmore 230 kV Circuit 937 Interconnect		\$100	\$200	\$200		\$500
Nocatee 230 kV Circuit 911 Interconnect		\$100	\$100	\$200	\$100	\$500
GEC 230 kV Circuit 911 Interconnect		\$100	\$100	\$200	\$100	\$500
West Jax Substation Protection Improvement		\$91	\$32			\$123
GEC 230 kV Bay and Breaker Addition for Circuit 911			\$400	\$400	\$200	\$1,000
West Jax T3 200 MVA Autotransformer Addition					\$2,000	\$2,000
	\$299	\$12,580	\$29,022	\$34,256	\$29,900	\$106,057

Five Year Capital Plan - Substation & Transmission Projects

Manager: Ricky Erixton

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Substation R&R Project - Transformer Replacements	\$1,300	\$1,400	\$1,400	\$1,400	\$1,400	\$6,900
General Protection System Improvements Transmission	\$301	\$300	\$300	\$300	\$300	\$1,501
Kennedy Substation 13kV Switchgear Replacement	\$100	\$1,400				\$1,500
Transmission Circuit 666 Replace Structures 31, 32, 33, 34, 35 36 and 37 - Storm Hardening	\$50	\$375	\$1,010			\$1,435
Substation R&R Projects - Future		\$3,000	\$3,000	\$3,000	\$3,000	\$12,000
	\$1,751	\$6,475	\$5,710	\$4,700	\$4,700	\$23,336

Five Year Capital Plan - Substation & Transmission Projects

Manager: Michael Short

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
230/26kV Substation at Brandy Branch	\$6,027					\$6,027
Transmission - Circuits 821 - 822 - 853 Structure Rebuild – Electric Improvements	\$4,588					\$4,588
Cecil Commerce Center North 230/26KV Substation	\$2,552					\$2,552
Ortega 26/4 kV Substation Rebuild	\$1,821					\$1,821
McDuff 13-4 kV Substation Rebuild	\$1,763					\$1,763
Rosselle 26/4 KV Substation Rebuild	\$1,644					\$1,644
Point Meadows 230 - 26 kV Substation	\$1,500	\$8,055				\$9,555
General Transmission Improvements	\$817	\$300	\$300	\$300	\$300	\$2,017
Transmission Lines Protection & Control Updates - SPCP Project	\$750	\$750	\$750	\$750	\$750	\$3,750
Herschel 26/4 KV Substation Rebuild	\$549					\$549
Cecil Commerce Center North 230 kV Circuit 944 Interconnect	\$286					\$286
Southside Substation - Geotechnical Upgrades (Design Only)	\$244					\$244
Substation at Brooklyn	\$100					\$100
Transmission - Circuits 930/942 - Brandy Branch - Steelbald - Duval - Protection and Control Updates	\$78					\$78
(R) - JaxPort 26 kV - 13_2 kV Stepdown Substation	\$66					\$66
1375 Church Street Sub-Station Demolition	\$25					\$25
PSI - Imeson 138 to 26kV Substation Reconfiguration	\$20					\$20
PSI - Riverside Area Substation Feasibility Review	\$18					\$18
Transmission - Point Meadows 230 kV Circuit Interconnect	\$5	\$299				\$304
Kennedy Substation T-14 Additions and T-12 Upgrade	\$2					\$2
	\$22,855	\$9,404	\$1,050	\$1,050	\$1,050	\$35,409

Five Year Capital Plan - O&M Grid Projects

Manager: Ricky Erixton

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
230KV_138KV_69 kV Insulator Refurbishment	\$704	\$500	\$500	\$500	\$500	\$2,704
General Substation Improvements	\$503	\$400	\$400	\$400	\$400	\$2,103
230 KV_ 138KV_69 kV Pole Refurbishment	\$500	\$500	\$500	\$500	\$500	\$2,500
Capital Tools and Equipment - E1	\$130	\$80	\$80	\$80	\$80	\$450
OM - General Transmission Improvements	\$101	\$100	\$100	\$100	\$100	\$501
Transmission R&R Projects - Future		\$2,500	\$2,500	\$2,500	\$2,500	\$10,000
	\$1,938	\$4,080	\$4,080	\$4,080	\$4,080	\$18,258

Five Year Capital Plan - O&M Grid Projects

Manager: Jeremy Mathews

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
COM - New Electric Service Additions	\$7,100	\$7,300	\$7,600	\$8,000	\$8,500	\$38,500
Electric Distribution Maintenance Capital Upgrades	\$6,000	\$6,800	\$6,800	\$6,800	\$6,800	\$33,200
CEMI-5 Electric Distribution Betterment	\$6,000	\$2,000	\$2,000	\$2,000		\$12,000
General Underground Network and Commercial R&R and Upgrades	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$7,500
Pole Replacement Program	\$1,300	\$1,300	\$1,300	\$1,300	\$1,300	\$6,500
Capital Tools and Equipment - Electric	\$125	\$125	\$125	\$125	\$125	\$625
Network Highside Switch Replacement Program	\$120					\$120
	\$22,145	\$19,025	\$19,325	\$19,725	\$18,225	\$98,445

Five Year Capital Plan - Generation Projects

Manager: Margaret Limbaugh

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
BBCT2 Hot Gas Path Inspection #4	\$5,170					\$5,170
BBCT3 Hot Gas Path Inspection #4	\$5,170					\$5,170
Brandy Branch ST4 Major Inspection Capital Parts	\$2,750					\$2,750
Northside Units 1, 2, & 3 Capital Improvement Projects	\$1,500	\$5,642	\$6,000	\$6,000	\$6,000	\$25,142
Steam Plant General Capital Improvements	\$1,500	\$2,000	\$2,000	\$2,000	\$2,000	\$9,500
KCT7 K37 Exhaust Silencer	\$1,339					\$1,339
NS 1 & 2 CFB Cyclone A-B-C Refractory Replacement	\$1,100					\$1,100
BB - GEC General Capital Improvements	\$1,000	\$2,000	\$2,000	\$2,000	\$2,000	\$9,000
NSG -Discharge Basin - Wall	\$967					\$967
NS-1 SDA Cone Replacement	\$900					\$900
BGS KGS Bently Nevada System One Upgrade-R1	\$282					\$282
NS 1 & 2 Flyash Diverter Valves	\$228					\$228
BGS Low Voltage Ride Through System Installation	\$192	\$934				\$1,126
BGS Combined Cycle Simulator	\$159					\$159
NS 1 & 2 N00, N01, N02 DCS Power System Replacement	\$142	\$359	\$359	\$360		\$1,220
NGS Tank #1, #2, & #3 Demo	\$7	\$358				\$365
BBCT1 Hot Gas Path Inspection #2		\$5,300				\$5,300
BBGS HRSG 2 SCR		\$1,250				\$1,250
BBGS HRSG 3 SCR		\$1,250				\$1,250
KCT7 Hot Gas Path Inspection #3			\$5,432			\$5,432
BBCT2 Hot Gas Path Inspection #5				\$5,568		\$5,568

Five Year Capital Plan - Generation Projects

Manager: Margaret Limbaugh

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
BBCT3 Hot Gas Path Inspection #5				\$5,568		\$5,568
KCT8 Hot Gas Path Inspection #1					\$5,568	\$5,568
	\$22,406	\$19,093	\$15,791	\$21,496	\$15,568	\$94,354

Five Year Capital Plan - Distribution Projects

Manager: Garry Baker

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Electric Customer Service Response Lateral & Quick Response Work	\$250	\$250	\$250	\$250	\$250	\$1,250
Electric Customer Service Response Tools and Equipment	\$54	\$92	\$92	\$58	\$157	\$453
	\$304	\$342	\$342	\$308	\$407	\$1,703

Five Year Capital Plan - Distribution Projects

Manager: Russ Durham

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
13kV Electric Distribution Network Improvements Placeholder	\$1,368	\$5,000	\$5,000			\$11,368
Sutton Lakes URD Tie 219 & 442	\$204					\$204
Blair Rd Solar Center Project	\$162	\$38				\$200
Normandy 361 Extension: Blair Rd to Blair Rd Solar Center Electric and Fiber	\$70	\$30				\$100
26KV Reconductor Circuit 417 - 418 - Woodley Rd from New Kings Rd to Old Kings Rd	\$54	\$377	\$243			\$674
Nocatee Substation Distribution Feeders		\$250	\$1,000	\$1,000		\$2,250
4kV Conversion - Fairfax and 21st & Hubbard		\$65	\$1,150	\$650		\$1,865
Dinsmore Dist Feeders		\$50	\$355	\$228		\$633
4kV Rehab – Distribution Projects			\$500	\$500	\$500	\$1,500
	\$1,858	\$5,810	\$8,248	\$2,378	\$500	\$18,794

Five Year Capital Plan - Distribution Projects

Manager: Ricky Erixton

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Transformer PILC Cable Replacement - Network Substations	\$650					\$650
26kV Reliability Improvement - Distribution Feeder Relay System Replacement	\$455					\$455
	\$1,105	\$0	\$0	\$0	\$0	\$1,105

Five Year Capital Plan - Distribution Projects

Manager: Matt Lundeen

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Automatic Recloser Deployment	\$1,200	\$1,020	\$740	\$460	\$1,000	\$4,420
Electric Distribution System Improvements	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$5,000
	\$2,200	\$2,020	\$1,740	\$1,460	\$2,000	\$9,420

Five Year Capital Plan - Distribution Projects

Manager: John Norse

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Church to Main Feeder Ties Electric	\$2,597					\$2,597
Edison 1,2 McDuff 5 - 4kV Conversion	\$1,948					\$1,948
Blount Island Circuit 487 Reconductor	\$1,740					\$1,740
Brandy Branch 26 kV Substation Getaways	\$1,422					\$1,422
Hamilton 311 26kV Reconductor and OH to UG Ortega Bv from Verona to Robert Gordon Rd	\$1,200	\$1,073				\$2,273
Beeghly 393 Reconductor - Pecan Park - Main to GroSolar Montgomery Solar Farm	\$943					\$943
Herschel 1, 2 - 4KV Reconductor	\$693					\$693
Distribution System - Pole Removal	\$600	\$600	\$600	\$600	\$600	\$3,000
Cecil Field 389 and 390 Electric PQ-R Improvement	\$564					\$564
Underground Cable Replacement Program - Existing Developments	\$500	\$500	\$500	\$500	\$500	\$2,500
General Distribution Improvements	\$500	\$500	\$500	\$500	\$500	\$2,500
Beaver 2, McDuff 3, 8 - 4kV Conversion	\$467					\$467
Cecil Commerce Center North Distribution Feeders	\$310					\$310
Oakwood 558, Robinwood 553 - 26 kV Reconductor	\$247					\$247
Southbank - UG Network - PILC Recabling	\$238					\$238
NAS - New Feeder 350 from NAS Sub to Navy Sub No 1	\$209					\$209
Northwest Jax 455 Reconductor - Breaker to Fuses and Open Points	\$173					\$173
Rosselle 4kV Substation Getaway Rebuild	\$135					\$135
Rosselle 1, 5, College Circuit 3, 4, McDuff 2 - 4kV Reconductor	\$120					\$120
Water to Georgia Ckts 143, 144 - 13KV FDR Ties	\$114					\$114
Beeghly Heights Substation - GroSolar Montgomery Solar Center	\$100					\$100

Five Year Capital Plan - Distribution Projects

Manager: John Norse

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Ortega Substation 26kV Feeds and 4kVGetaways	\$85	\$113				\$198
Point Meadows Substation Dist Feeders	\$71	\$482				\$553
McDuff 13/4 kV Getaway Rebuild	\$65					\$65
Blount Island 487 JaxPort Substation Interconnect	\$55					\$55
OH-UG Conversion in Neighborhoods		\$1	\$1	\$1		\$3
	\$15,096	\$3,269	\$1,601	\$1,601	\$1,600	\$23,167

Five Year Capital Plan - Development

Manager: Ken Talley

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
COM - Development Driven Projects - E	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000
	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000

Five Year Capital Plan - Interagency Projects

Manager: John Norse

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Joint Participation Electric Relocation Projects	\$3,176	\$2,000	\$2,000	\$2,000	\$2,000	\$11,176
JP - Beaver St. and Outerbeltway Interchange	\$438					\$438
JP - FDOT - SR 23 Outerbeltway - E	\$414					\$414
(R) JP - FDOT - I-95 Overland Bridge Improvements (from Main Street to Philips Hwy) R100	\$256					\$256
(R) JP - Twin Creeks - SR210 - E	\$130					\$130
(R) JP - I-10 and US 301 - E	\$50					\$50
(R) JP - FDOT - I-295 Express Lanes- Buckman to I-95 - E R-100	(\$127)					(\$127)
	\$4,337	\$2,000	\$2,000	\$2,000	\$2,000	\$12,337

Five Year Capital Plan - Protection & Control Projects

Manager: Darrell Hamilton

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Southside GIS 69kV Controller Replacement	\$1,981					\$1,981
Greenland Substation Protection Improvement	\$681					\$681
230/26kV Substation at Brandy Branch Protection and Control	\$637					\$637
Normandy Substation Protection Improvement	\$257					\$257
Brandy Branch & Normandy Substation CIP 5 Upgrade	\$236					\$236
Northside Substation Improvements	\$143					\$143
College St Substation 13kV Protection and Arc Flash Upgrade	\$96	\$296				\$392
Dinsmore 230 - 26 kV Substation - SPCP Project		\$182	\$468			\$650
	\$4,031	\$478	\$468	\$0	\$0	\$4,977

Five Year Capital Plan - Streetlight Improvements

Manager: Thomas Ventresca

Project Description	FY16	FY17	FY18	FY19	FY20	Total Estimate
Streetlight Improvements	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000
	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000