



# SOLVING THE TECHNICAL STAFFING GAP

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## REAL CHALLENGES

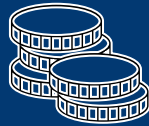
### Billions are Being Invested in Florida



FPL approximately \$10B in infrastructure thru 2029



Gulf Power \$1B over 10 years



Duke \$6B over next 10 years



Florida leads the nation in direct Hurricane hits



Florida Population projected to hit 26 Million in 2030

**This is NOT a Short Term Problem**



## REAL CHALLENGES

### Investment is Impossible without Talent



**POOR OVERSIGHT IS THE GREATEST RISK**



**SKILLED TECHS ARE HARD TO FIND**



**AGING WORKFORCE**



**EXISTING GRID IS OLD**



**CUSTOMERS DEMANDING HIGHER PERFORMANCE & GREENER TECH**

**This is NOT a Short Term Problem**

# SOLVING THE TECHNICAL STAFFING GAP



93%

OF UTILITY EMPLOYERS IN  
ELECTRIC POWER GENERATION  
REPORTED THAT IT WAS EITHER  
SOMEWHAT DIFFICULT OR VERY  
DIFFICULT TO HIRE NEW  
EMPLOYEES.\*



\* According to the 2020 U.S. Energy & Employment Report by the Energy Futures Initiative (EFI) and National Association of State Energy Officials (NASEO).

# SOLVING THE TECHNICAL STAFFING GAP



## 3 SCENARIOS

MODEL 1

Hire In Full-Time

MODEL 2

Bid Project Scope

MODEL 3

Staff Augmentation

# SOLVING THE TECHNICAL STAFFING GAP



## 3 SCENARIOS

Works if spending and growth are slow and steady

Hire In Full-Time

Best on Cap EX  
Oversight Risk

Bid Project Scope

Can Combine with  
Models 1 & 2  
Cap Ex, Op Ex, or Maintenance

Staff Augmentation



## How Does Model 3 Work?

### Outsource Staffing

- Long Term Project 6-9 months preferred
- Negotiate Rates (ST/OT) with Supplier
- Likely from out of State so per diem gets negotiated
- Vet Resumes / Interview Potential Candidates
- Terminate when Task(s) Complete
- Most Flexible Model

# COST ANALYSIS EXAMPLES

<b>Commissioning Engineer</b>	<b>Hire</b>	<b>\$/Hour</b>	<b>Comment</b>
Base Salary	\$ 115,000	\$ 57.50	
Benefit multiplier	30%	\$ 17	Assumes Health Care, Insurance
Pension/401K	4%	\$ 2	
Payroll Taxes	14%	\$ 8	
Recruiter fee	28%	\$ 16	28% industry average for Engineer
PTO	\$ 6,613	\$ 3.31	Assume 3 weeks PTO (.0575 x base salary)
IT Cost	\$ 2,000	\$ 1	Laptop, workstation
Other		\$ -	Mgmt time for bad employee, HR cost, training.
<b>Total</b>	<b>\$ 206,413</b>	<b>\$ 105.51</b>	





# COST ANALYSIS EXAMPLES

Commissioning Engineer	Hire		Outsource: 4 Month		Outsource: 6 Month		Outsource: 9 Month	
	Annual	\$/Hour	Annual	\$/Hour	Annual	\$/Hour	Annual	\$/Hour
Base Salary	\$ 115,000	\$ 57.50	\$ 93,312	\$ 135.00	\$ 139,968	\$ 135.00	\$ 209,952	\$ 135.00
Benefit multiplier	30%	\$ 17						
Pension/401K	4%	\$ 2						
Payroll Taxes	14%	\$ 8						
Recruiter fee	28%	\$ 16						
PTO	\$ 6,613	\$ 3.31						
IT Cost	\$ 2,000	\$ 1						
Other		\$ -						
Per Diem (\$150/Day)			\$ 12,960	\$ 18.75	\$ 19,440	\$ 18.75	\$ 29,160	\$ 18.75
<b>Total</b>	<b>\$ 206,413</b>	<b>\$ 105.51</b>	<b>\$ 106,272</b>	<b>\$ 153.75</b>	<b>\$ 159,408</b>	<b>\$ 153.75</b>	<b>\$ 239,112</b>	<b>\$ 153.75</b>
Savings:			\$ 100,141		\$ 47,005		\$ (32,700)	



## Technical Staffing

- **Cyclical work that's not full time** (Plant/Station outages)
- **Typical in-house projects that don't repeat** (Validating Drawings, NERC Compliance, Plant Closures)
- **Third Party Oversight required or preferred** (Testing and Commissioning)
- **Understanding work flows for technical skills**
- **Supervision vs. Craft**
- **Trusted Partner**
  - Advance Insight to work
  - Same people year after year
  - Pre-negotiated rates/mark-ups



## STAFFING NEEDED FOR

Capital Improvement

Maintenance

Emergency

## Key Services

- Electrical Testing & Maintenance
- Relay and Meter Testing and Calibration
- High Voltage Testing
- Protection and Control (P&C)
- SCADA Technical Assistance and Engineering Support
- NERC Validation
- Startup Testing
- Acceptance Testing (System or Component)
- Plant Maintenance
- Operations Support
- Staff Augmentation (Engineering/Technicians)

# TECHNICAL STAFFING



## Key Roles | Key Departments

### GENERATION

Electrical Commissioning Manager  
Instrument & Controls Commissioning Manager  
Mechanical Commissioning Manager  
NERC/FERC Compliance Specialist  
Electrical Manager  
Scheduler

### TRANSMISSION

Commissioning Manager  
SCADA Engineer  
SCADA Technician  
Utility Relay Technician  
Utility Substation Project Managers  
Utility Substation Project Coordinators

### OTHERS

Commissioning Leads | Commissioning Crews | Commissioning Engineers | Back Office Support | Apparatus Technicians | Electrical Engineers | Electrical Technicians | Field Engineer | I&C Technicians | Mechanical Technicians | P&C Technicians | Plant Operators | Startup Coordinators | Turnover Coordinators | Shift Supervisors | Control Room Operators | Maintenance Planners | Analyzer Technicians | Reliability Technicians | Electricians | Maintenance Managers | Craft Journeymen | Procurement Specialists

### STAFFING NEEDED FOR

Capital Improvement

Maintenance

Emergency



**Public  
Funded  
Model**

**3 BIDS**

And a Cloud of Dust



## Keys to the Bidding Process

### Technical Staffing

- Identify Key Roles that can be staffed or Augmented through the year
- Identify Potential Suppliers and Bid rates and/or Mark-ups for series of skillsets
- BE SPECIFIC in the bidding process - What is special tooling or test sets...
- Understand the hiring timeline and vet candidates
- Technical leadership, procurement and supplier need to regularly communicate
  - >>> If someone is not working out move quickly

# SOLVING THE TECHNICAL STAFFING GAP



We Need to Think About  
the Technical Staffing  
Process **Differently**  
Using **Outsourcing**

Other Industries have been doing this **for decades**...larger electric utilities are **doing this now**

This model is accessible to smaller utilities  
**TODAY**



THANK YOU