



Delivering Capital Projects – Executing the Transmission Investment Plan

Jim Schott

September, 2019

We exist to grow a world class energy business



Entergy®

WE POWER LIFESM

Discussion Outline

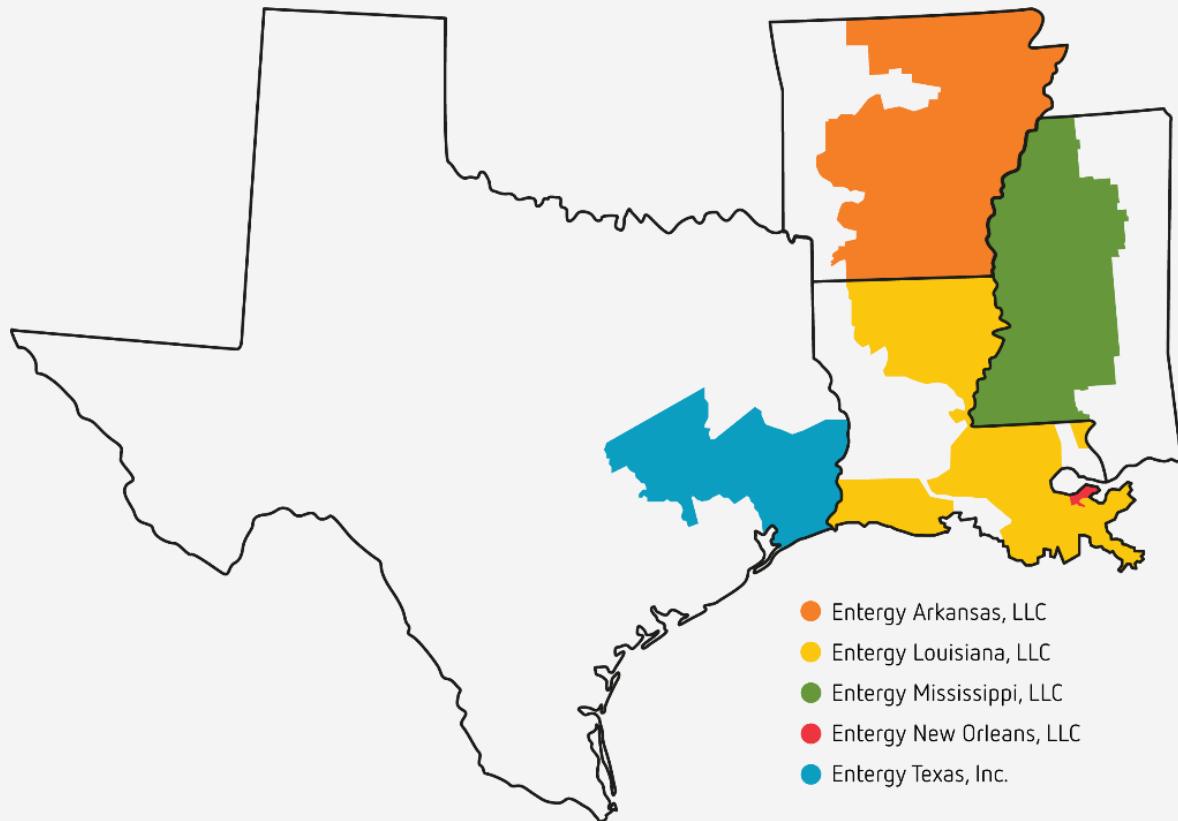
Entergy Overview

Enterprise Portfolio – Process, Governance & Oversight

Transmission Portfolio

People

Utility



Electric utilities in four contiguous states

2.9 million utility customers

Approximately 22,000 MW of generating capacity

- **Entergy Arkansas**, Little Rock (700,000 customers in 63 counties and 750 employees)
- **Entergy Louisiana**, Baton Rouge (1,000,000 electric customers in 58 parishes, 93,000 gas customers in East Baton Rouge Parish, and 970 employees)
- **Entergy Mississippi**, Jackson (450,000 customers in 45 counties and 490 employees)
- **Entergy New Orleans**, New Orleans (200,000 electric and 107,000 gas customers in Orleans Parish, and 280 employees)
- **Entergy Texas**, The Woodlands (458,000 customers in 27 counties and 400 employees)

***Note:** The numbers above are approximations.



Entergy®

WE POWER LIFESM



We exist to grow a world-class energy business that creates sustainable value for our four stakeholders – customers, employees, communities and the owners in which we operate.



Entergy®

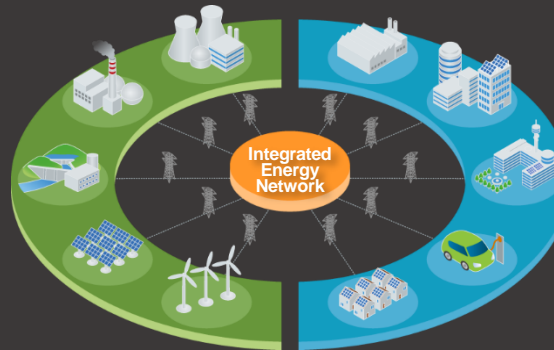
WE POWER LIFESM

Customer-centric strategy to grow our business

Investing in a more robust and modernized grid and fleet...



...In response to evolving customer demands

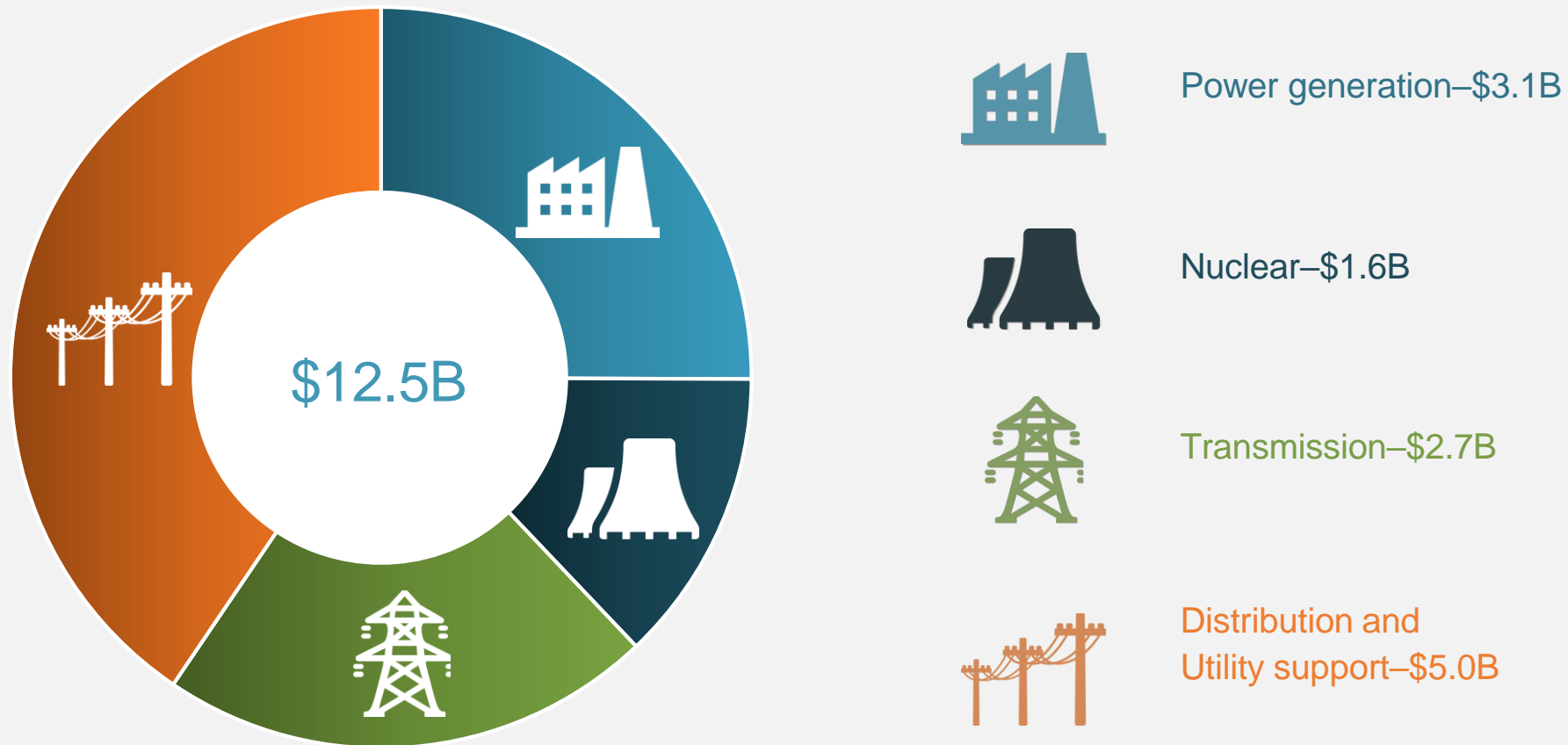


...With regulatory support and timely cost recovery.



Robust Utility 2019E–2021E investment plan...

Execution, predictability, visibility, and prioritization are critical to productive enterprise investment



Modernize the Generation Fleet⁷

We are constructing / acquiring ~7 GW of reliable, efficient generation through 2021



Ninemile 6

560 MW

COD December 2014



Union Power Plant

2009 MW

Acquired 2016



St. Charles Power Station

926 MW

COD May 2019



Hinds 2 Blackstart

32 MW

COD planned late 2019



Choctaw Power Plant

810 MW

Acquisition planned late 2019



Lake Charles Power Station

994 MW

COD planned 2020



New Orleans Power Station

128 MW

COD planned 2020



Montgomery County Power Station

993 MW

COD planned 2021



Washington Parish Energy Center

361 MW

COD planned late 2020



Hardin County

150 MW

Acquisition planned 2021

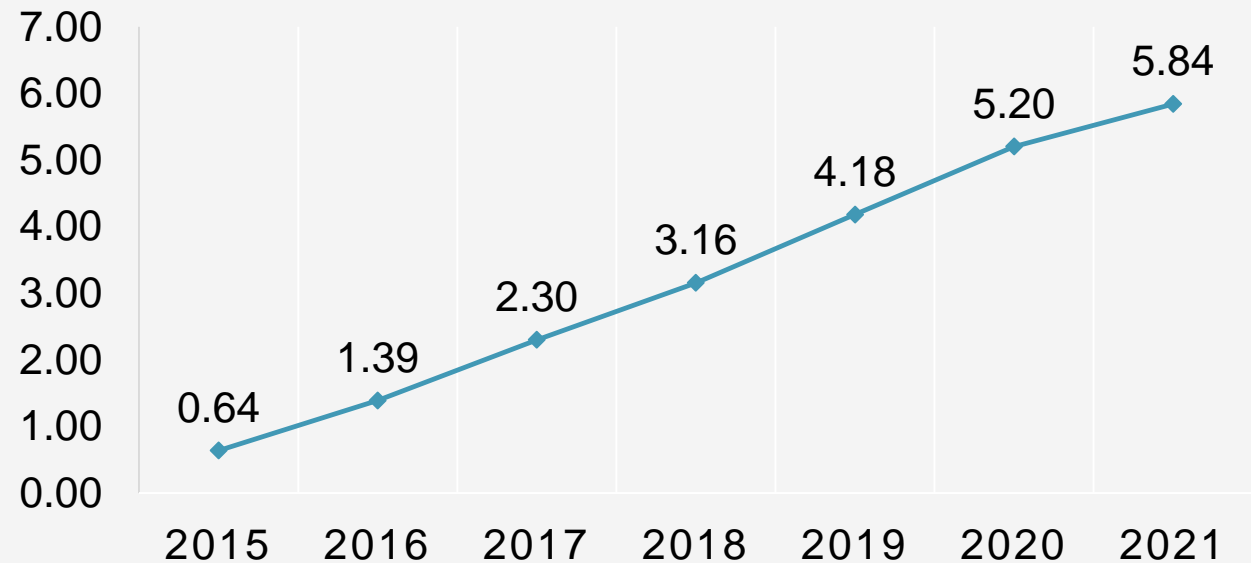
Transmission Investment

Value, execution, and prioritization are critical to stakeholder objectives



- \$4.1B investment since 2015
- Improving reliability
- Relieving congestion
- Connecting new customers

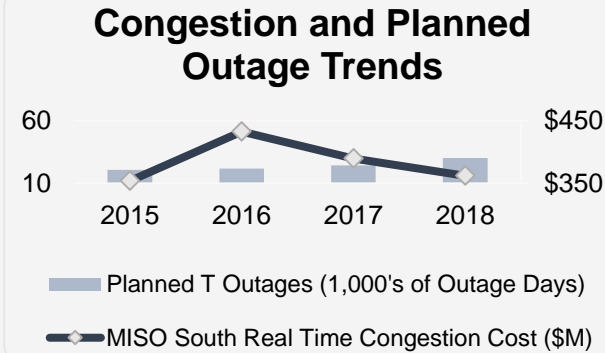
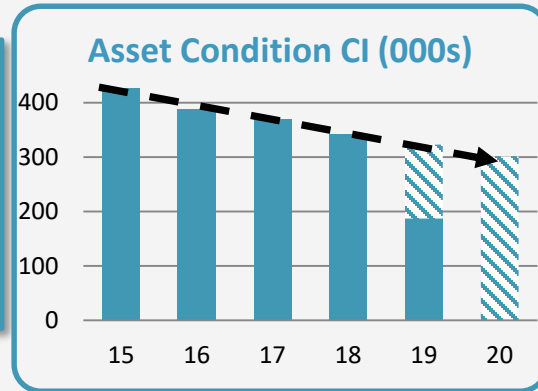
CUMULATIVE INVESTMENT (T FERC) (\$B)



Transmission Investment

Creating value for our four stakeholders

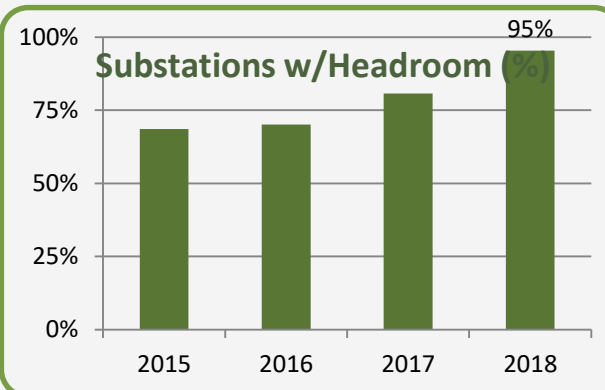
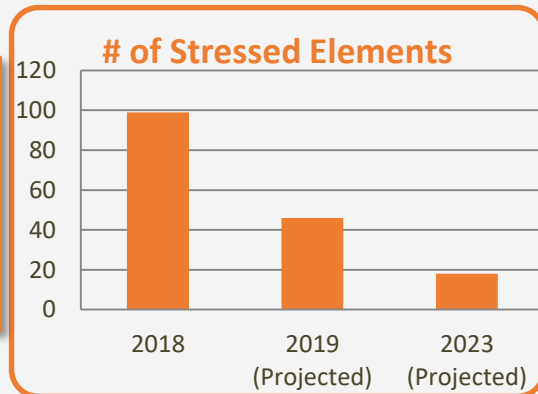
Customers see fewer interruptions caused by transmission system asset failures



Customers

benefit from declining congestion through access to lower cost energy (even as planned outages increase)

Employees work in a lower pressure environment due to better outage availability and increased operating margins

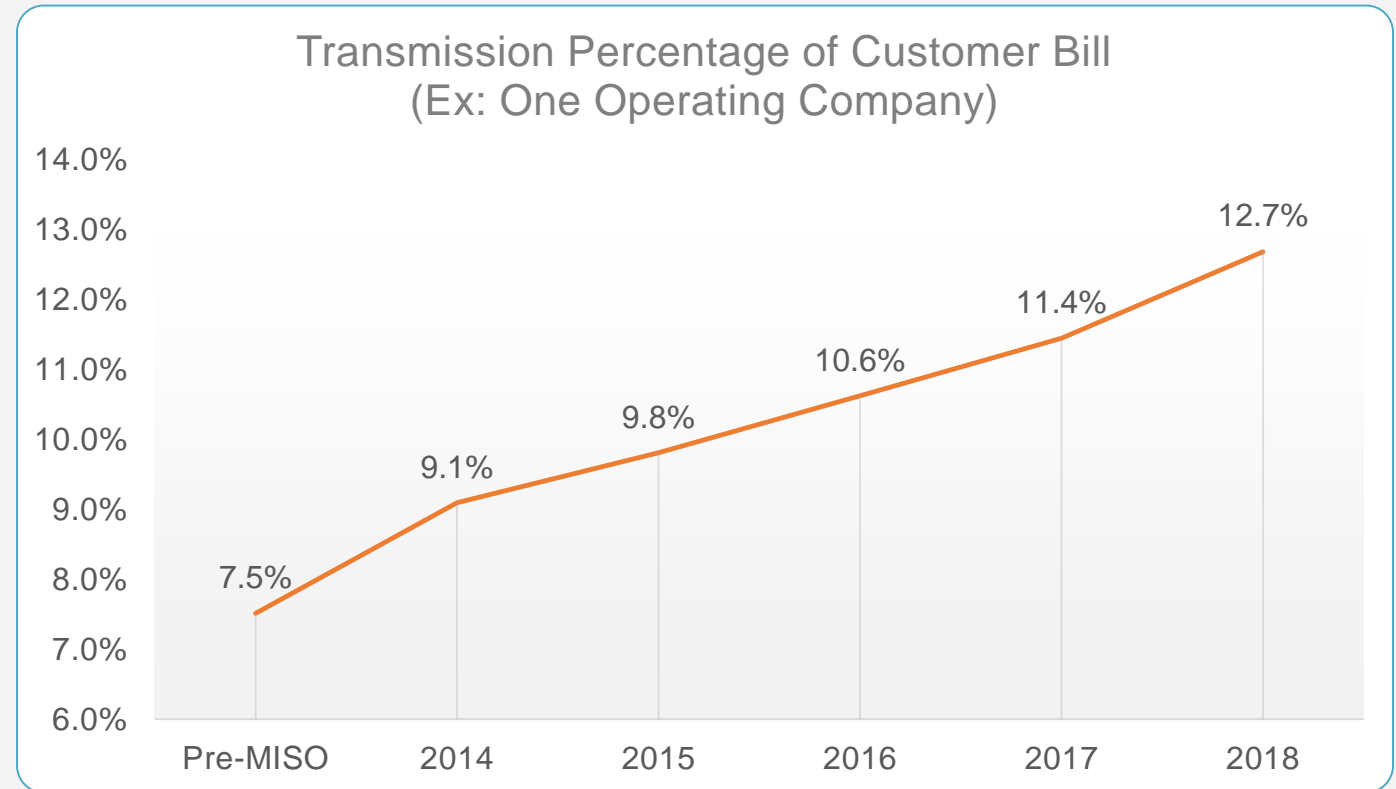


Communities have room to grow without triggering costly transmission upgrades

Value, Execution, Prioritization

We intend to exceed customer expectations without increasing their cost

- Are construction costs at value?
- Do we have visibility and predictability of cost and schedule?
- Are we deploying capital productively?



Discussion Outline

Entergy Overview

Executing the Portfolio – Process, Governance & Oversight

Transmission Portfolio

Partners and People

Our Journey Started Several Years Ago . . .

Leading to formation of capital projects group and standardized project delivery system

Gaps to Excellence

- Inconsistent processes with minimal focus on early development
- Project teams often pulled in to day-to-day operational issues
- Not enough focus on metrics
- Varying levels of oversight

Current state

- ✓ ***Standardized project delivery system***
- ✓ ***New Capital Projects group***
- ✓ ***Robust metrics and reporting***
- ✓ ***Governance & oversight function***

Project Delivery System – Execute and Deliver Projects Safely, of High Quality and with Cost, Schedule Certainty

Stage Gate Process

Stage Gate Process



Deep Dive Assessments

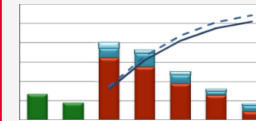
- ✓ Project Execution Plan
- ✓ Basis of Estimate
- ✓ Basis of Schedule
- ✓ Risk Register

Risk Management



Monthly Project Reporting

Dashboards



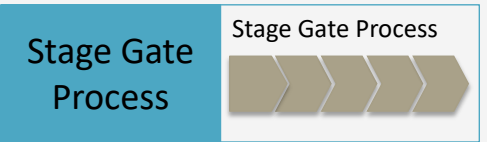
Ongoing Portfolio Review

KPIs

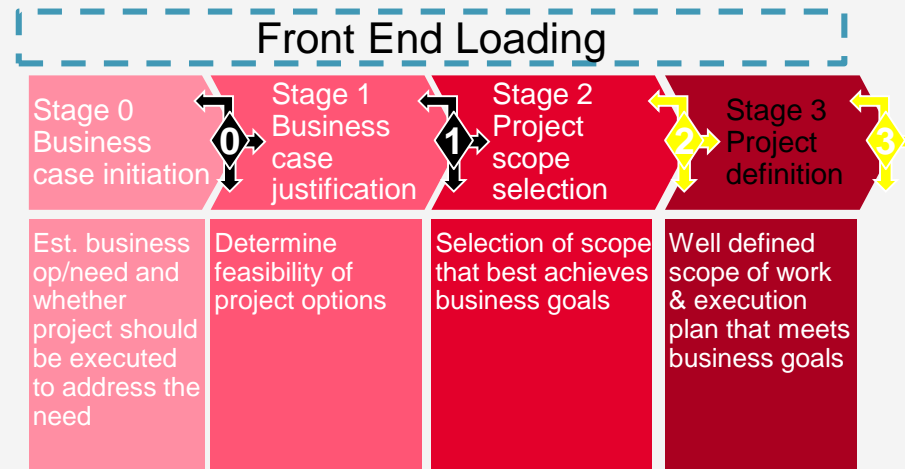
Safety	Sched	Cost	Risk

Stage Gate Process

The systematic approach to develop and execute



◆ Critical decision gate ◆ Decision gate

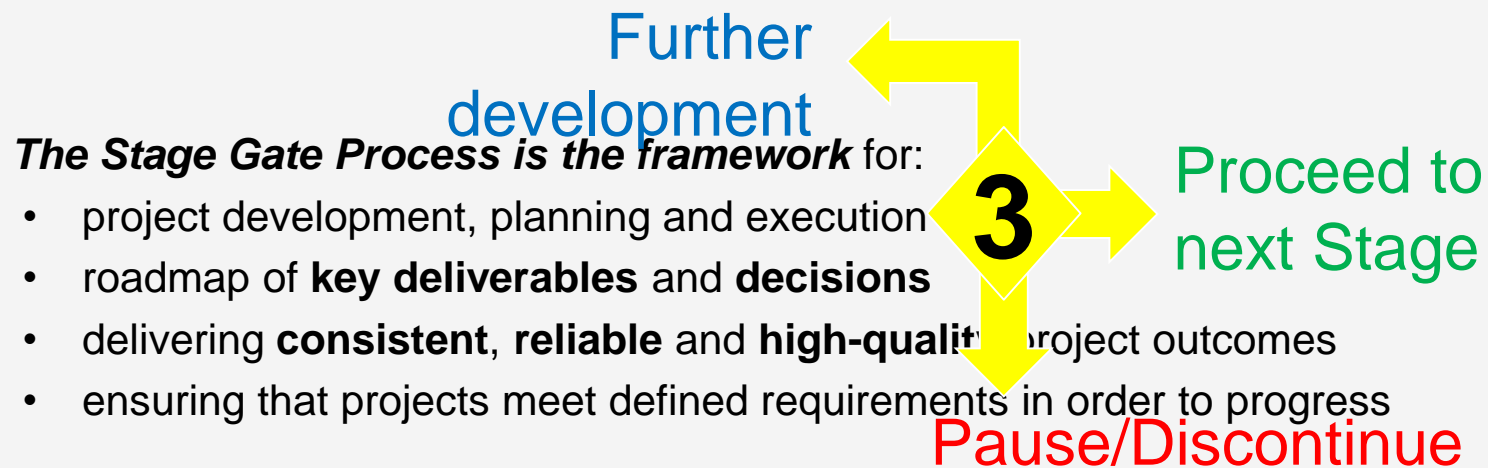
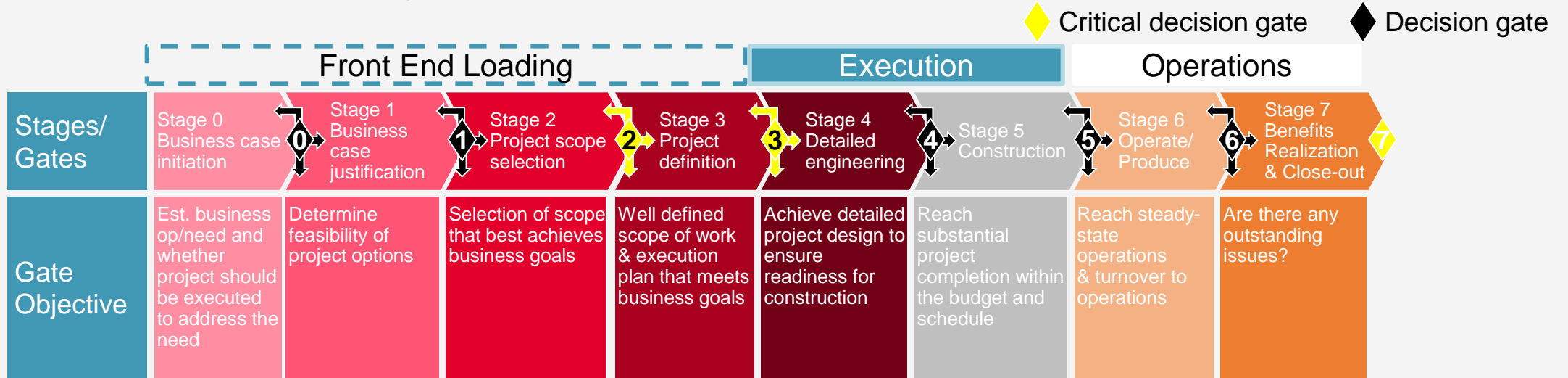
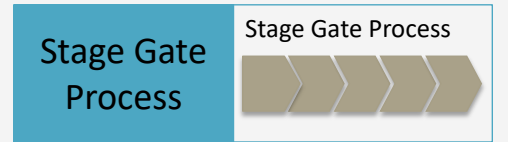


The Stage Gate Process is the framework for:

- Project development, planning and execution
- Roadmap of **key deliverables** and **decisions**
- Delivering **consistent, reliable** and **high-quality** project outcomes
- Ensuring that projects meet defined requirements in order to progress

Stage Gate Process

The systematic approach to develop and execute



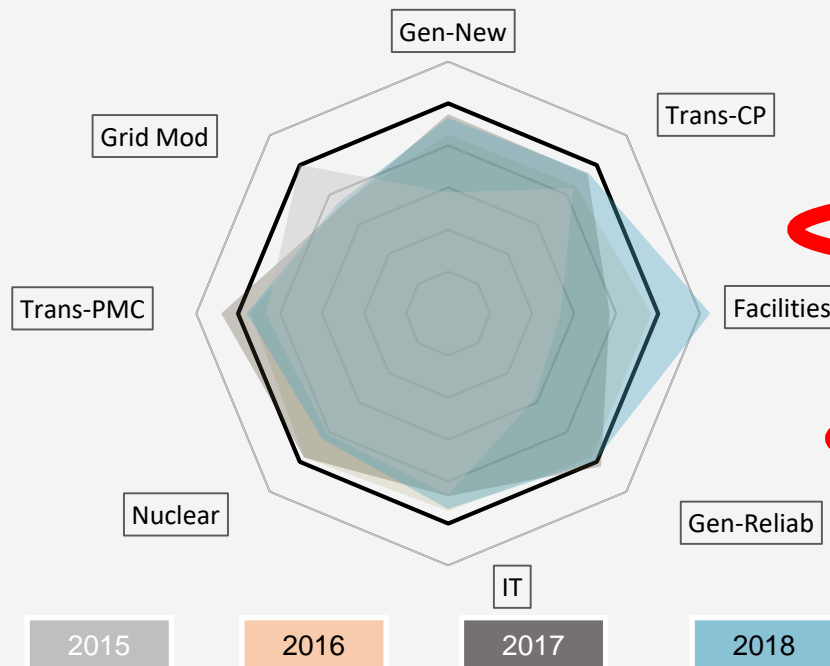
Portfolio Performance Management

Key performance indicators

2015-2018 Budget vs. Forecast (Fully Funded Projects)

2015 - 2018 Variance

2015 - 2018 Variance (\$M)



Function	2015	2016	2017	2018
Gen-New	\$ (34)**	\$ (33)	\$ (30)	\$ (64)
Gen-Reliab		\$ (2)	\$ 3	\$ (1)
Trans-CP	\$ (48)	\$ 31	\$ (25)	\$ (19)
Facilities	\$ (17)	\$ (3)	\$ (3)	\$ 4
IT	\$ (22)	\$ (9)	\$ (26)	\$ (9)
Nuclear	\$ (75)	\$ (8)	\$ (8)	\$ (67)
Trans-PMC*	\$ (12)	\$ (3)	\$ 7	\$ (11)
Grid Mod	N/A	\$ (15)	\$ (58)	\$ (42)
Total	\$ (208)	\$ (37)	\$ (140)	\$ (209)

* Includes Trans-AM for 2015- 2018

** All Generation for 2015

Project Delivery System

Keys to success

- ✓ Stage Gate process
- ✓ Deep dive assessments
- ✓ Engaged and effective Executive Steering Committees
- ✓ Shared learnings/best practices incorporated into processes
- ✓ People ... delivering on our objectives

“Entergy’s processes and controls are considered top tier. There is a fine line between too much control and not enough control – you have struck the right balance.” (3rd Party Assessment)



Discussion Outline

Entergy Overview

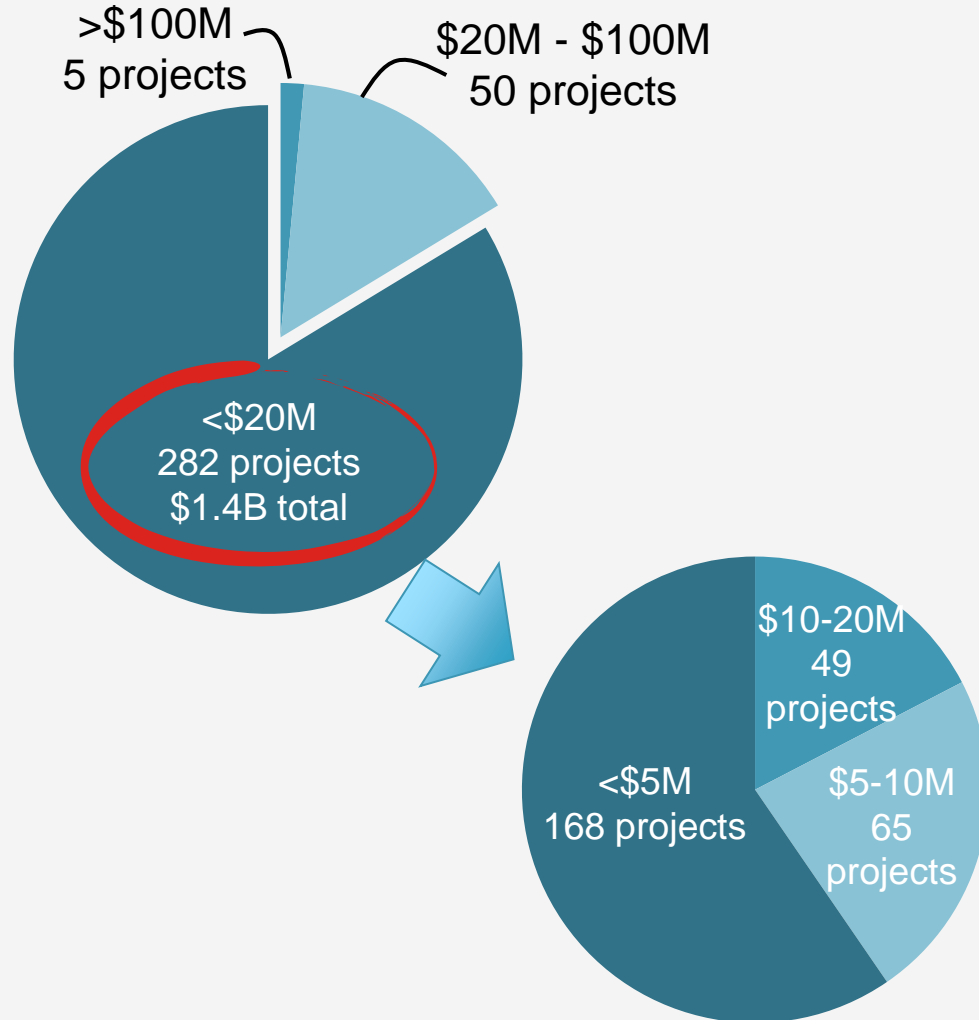
Executing the Portfolio – Process, Governance & Oversight

Transmission Portfolio

People

Executing the Transmission Portfolio

Portfolio management & optimization with targeted execution strategies



- ✓ Segment 3&4 Execution: Enterprise Capital Projects Organization through full EPC partners with fixed price and schedule risk
- ✓ Segment 1&2 Execution: Transmission Engineering, Project Management, and Construction: Multi-prime epC
- ✓ Transmission Portfolio Optimization Organization: Prioritization, budget, in-service optimization for Operating Companies

Strategic Partnering With Multiple Firms

Contract partners critical to our success

Must create and sustain win-win relationships:

- Partner with firms that share commitment to excellence
- Understand our vision, our mission, our objectives and the role they play in supporting us
- Engagement and alignment with executive leadership
- Establish common goals, share best practices, identify opportunities for improvement and share successes



BURNS  **McDONNELL**

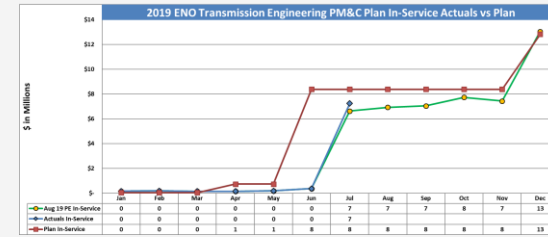
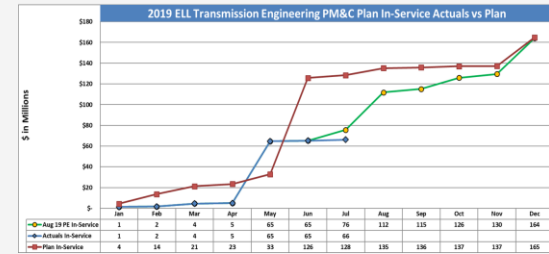
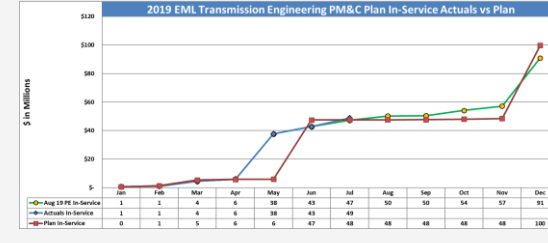
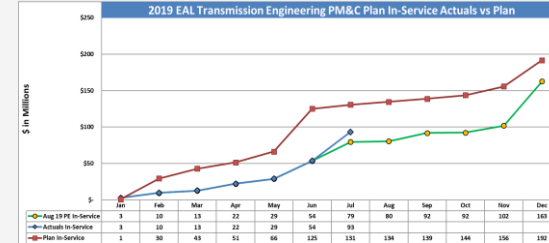
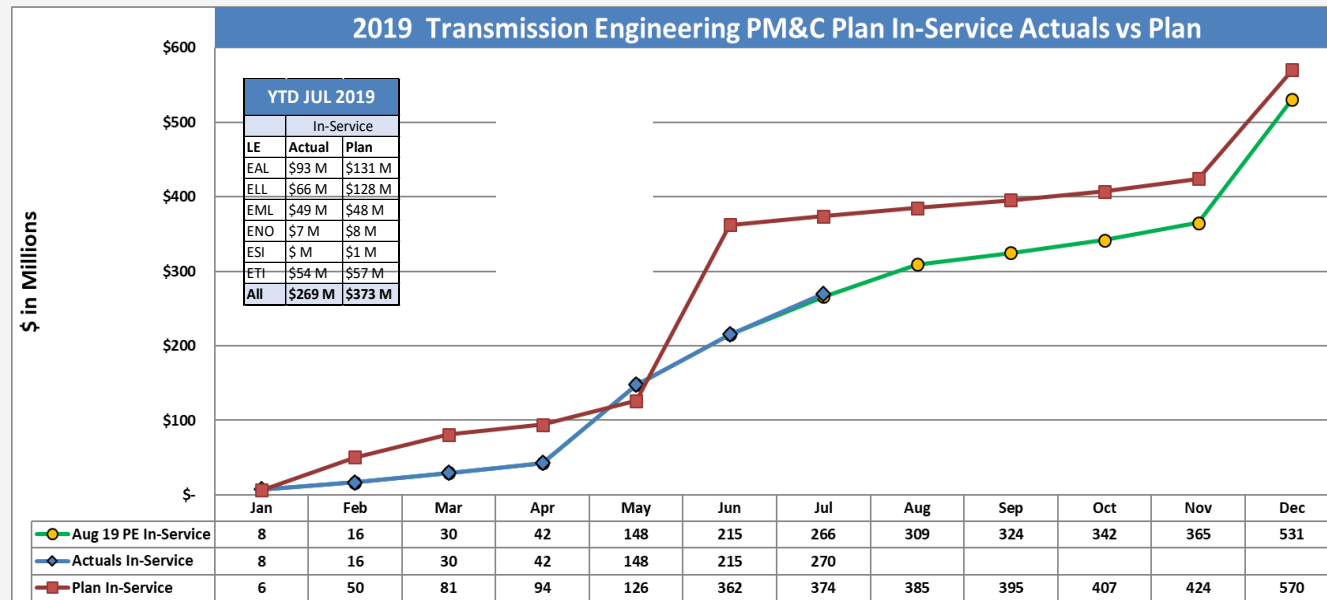


“Entergy demonstrates concern for safety so much more than other owners.” (T-Line provider)

“Entergy is a different kind of owner ... you are establishing true, strategic partners.” (OEM)

Visibility to optimize and make decisions on cash, regulatory actions, and priorities.

Year To Date Plant In-Service Performance



July Summary: \$54.7M

EAL: Mabelvale: Auto \$15.1M; West Helena \$8.3M; Moses Deactivation \$7M; Mabelvale to Bryant S \$6.8M
ELL: Ninemile-Barataria \$2.2M; Ninemile- Harvey \$1.6M
EML: RayBrasw \$3.8M; Henderson \$1.3M
ENO: Claiborne \$ 6.7M
ETI: Heights \$1.2

CM Actual Closings are ahead of the PE 7.7%, and behind the Budget (27.9%); EOY projections are to close below the Budget (7%)

YTD projects that are behind in closing in reference to the budget: Jim Hill \$20.3M; Solac Upgrade \$16M; Mblve \$15.6M; Beekman \$13.7M; Lowe Grt \$12.5M; El Dor \$10.6M; Solac \$9.6M; ISES \$8.1M; Tarleton \$10.8M;

AUG PE: \$42.9M

A0000: \$1M

*Minimal closings among a dozen or so projects

LA000: \$36.2M (AUG 30th T-Rider)

Solac Upg: \$14M; Lowe Grt \$10.3M; Mimosa \$3.7M; Hodge \$2.2M; Contrbd-Solac \$1.1M

M0000: \$2.9M

McAdams \$2.6M

N0000: \$300K

Claiborne \$300K

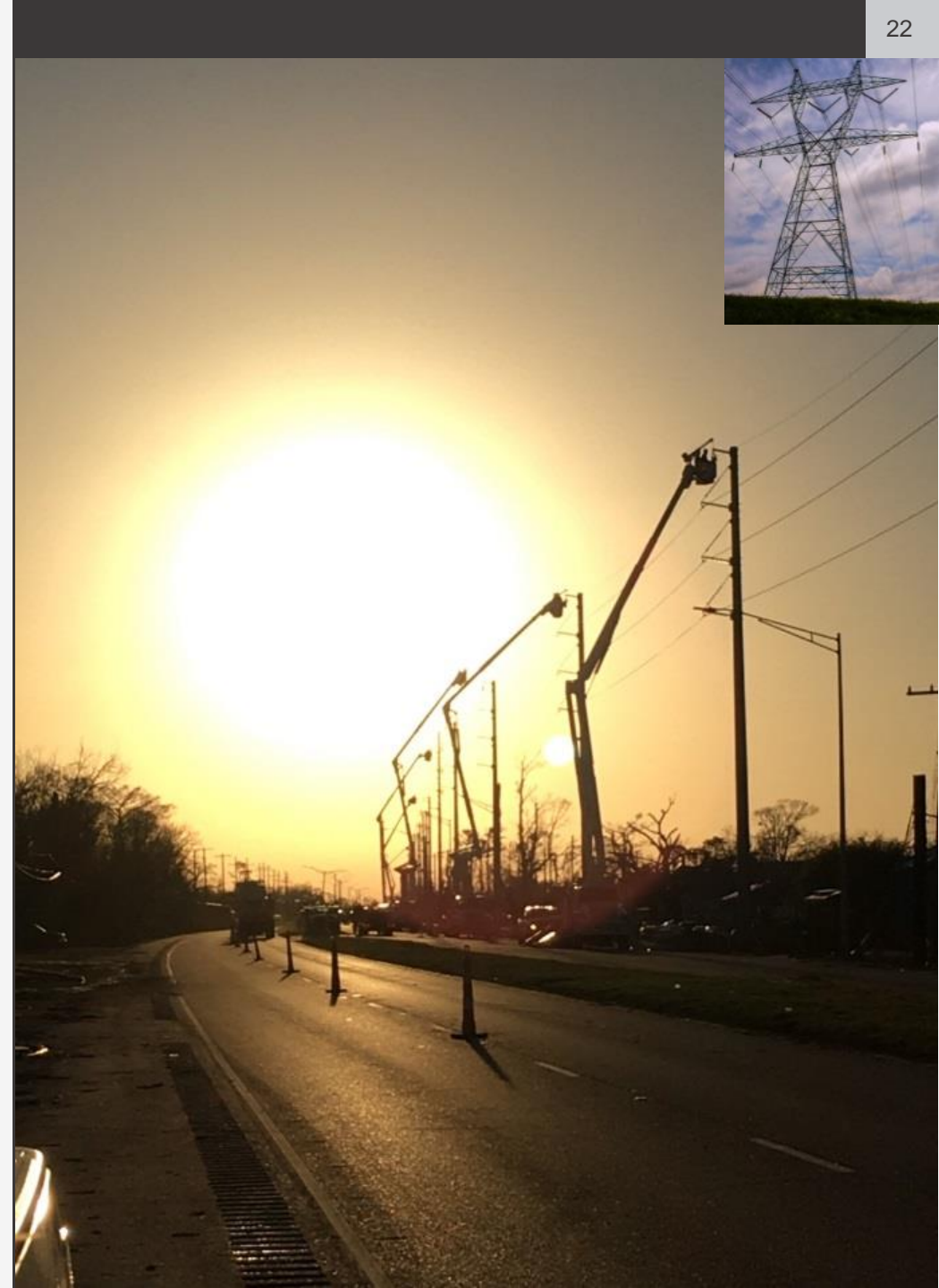
TX000: \$2.5M

Heights: Build New Sub \$2M

Executing the Transmission Portfolio

Keys to success

- ✓ Developing and maintaining a strong safety culture and driving operational excellence
- ✓ Capable and engaged project and portfolio teams
- ✓ Successful partnering with Engineering, Procurement & Construction (EPC) contractor
- ✓ Proactive risk assessments and management
- ✓ Portfolio management and optimization



Discussion Outline

Executing the Portfolio – Process, Governance & Oversight

New Generation Portfolio

New Transmission Portfolio

People

Process, Controls & KPI's Important . . . But People Deliver

Above all, delivering on our commitments safely

Creating and sustaining our culture:

- Alignment – it's more than delivering a project
- People – passionate about delivering excellence
- Teamwork – committed to each other and our objectives
- Engagement – from front-line employees to executives
- Development – helping our people improve and grow



“How We Work” – People Are the Key

Great people, great team executing our portfolio successfully

