#### Kenneth M. Mercado

Senior Vice President of Electric Operations and Technology.

A more than 34-year veteran of CenterPoint Energy and predecessor companies.



President of the Southeast Electrical Exchange board of directors, and member of several other boards, including the Engineering Leadership Board at the University of Houston.

Bachelor's degree in electrical engineering and a master's degree in industrial engineering from the University of Houston.

Executive Master of Business Administration (EMBA) degree from Mays Business School at Texas A&M University.

Registered engineer in the State of Texas.

# Hurricane harvey and energy resilience

Kenny Mercado, Senior VP Electric operations & technology

April 2, 2020

# First, a word from our attorneys *Cautionary Statement*

This presentation and the oral statements made in connection herewith contain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than statements of historical fact included in this presentation and the oral statements made in connection herewith are forward-looking statements made in good faith by CenterPoint Energy, Inc. ("CenterPoint Energy" or the "Company") and are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995, including statements concerning CenterPoint Energy's expectations, beliefs, plans, objectives, goals, strategies, future operations, events, financial position, earnings, growth, costs, prospects, capital investments or performance or underlying assumptions (including future regulatory filings and recovery, liquidity, capital resources, balance sheet, cash flow, capital investments and management, financing costs and rate base or customer growth) and other statements that are not historical facts. You can generally identify our forward-looking statements by the words "anticipate," "believe," "continue," "could," "estimate," "expect," "forecast," "goal," "intend," "may," "objective," "plan," "potential," "predict," "projection," "should," "target," "will," or other similar words. The absence of these words, however, does not mean that the statements are not forward-looking.

Examples of forward-looking statements in this presentation include statements about our growth and guidance (including earnings; dividend growth, yield and payout ratio; total shareholder return; and customer, utility and rate base growth (CAGR) expectations), our transition to become core utility focused, including the percentage of earnings therefrom, our proposed sales of Infrastructure Services and CES, including the expected timing and benefits therefrom, our goals with respect to carbon emissions reductions, including the development of customer program offerings and the timing for continued replacement of cast-iron pipe in legacy Vectren service territories, our anticipated equity and debt issuances, the performance of Enable Midstream Partners, LP ("Enable"), including and projections (including the Integrated Resources Plan in Indiana), our credit quality and balance sheet expectations, among other statements. We have based our forward-looking statements on our management's beliefs and assumptions based on information currently available to our management at the time the statements are made. We caution you that assumptions, beliefs, expectations, intentions, and projections about future events may and often do vary materially from actual results. Therefore, we cannot assure you that actual results will not differ materially from those expressed or implied by our forward-looking statements.

Some of the factors that could cause actual results to differ from those expressed or implied by our forward-looking statements include but are not limited to the timing and impact of future regulatory, legislative and IRS decisions, financial market conditions, future market conditions, economic and employment conditions, customer growth, Enable's performance and ability to pay distributions and other factors described in CenterPoint Energy's Form 10-K for the year ended December 31, 2019 under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Certain Factors Affecting Future Earnings" and in other filings with the SEC by the Company, which can be found at <a href="https://www.centerpointenergy.com">www.centerpointenergy.com</a> on the Investor Relations page or on the Securities and Exchange Commission's ("SEC") website at <a href="https://www.sec.gov">www.sec.gov</a>.

A portion of slide 14 is derived from Enable's investor presentation as presented during its Q4 2019 earnings presentation dated February 19, 2020. The information in this slide is included for informational purposes only. The content has not been verified by us, and we assume no liability for the same. You should consider Enable's investor materials in the context of its SEC filings and its entire investor presentation, which is available at <a href="http://investors.enablemidstream.com">http://investors.enablemidstream.com</a>.

This presentation contains time sensitive information that is accurate as of the date hereof (unless otherwise specified as accurate as of another date). Some of the information in this presentation is unaudited and may be subject to change. We undertake no obligation to update the information presented herein except as required by law. Investors and others should note that we may announce material information using SEC filings, press releases, public conference calls, webcasts and the Investor Relations page of our website. In the future, we will continue to use these channels to distribute material information about the Company and to communicate important information about the Company, key personnel, corporate initiatives, regulatory updates and other matters. Information that we post on our website could be deemed material; therefore, we encourage investors, the media, our customers, business partners and others interested in our Company to review the information we post on our website.



#### CenterPoint Energy utilities at a glance





#### **Texas Utility Operations**

- 5,000 square-mile greater Houston electric service area
- Serves 2.5+ million electric customers
- Owns and maintains electric delivery system poles and wires
- Does NOT generate nor sell electricity in Texas
- Serves 1.8+ million natural gas customers in Texas, 1+ million in greater Houston

Note: Map does not include Energy Services, Infrastructure Services, Energy Systems Group or Enable service territories

(1) Based on 2019E Electric T&D, Electric Generation and Natural Gas Distribution rate base as calculated by the individual jurisdictions

- (2) For the period 2019 through 2024
- (3) Metered customers as of December 31, 2019

### <u>Hurricane Harvey</u> Video – CenterPoint energy strong



#### **EMERGENCY OPERATIONS PLAN (EOP)**

WITH OVER 130 YEARS' EXPERIENCE, WE PREPARE YEAR ROUND

- Our Electric and Natural Gas businesses both have an Emergency Operations Plan
- Annual drill to test our emergency response
- Coordinate our EOP with state and local officials
- Work with a mutual assistance network that lets us give/receive assistance to/from other utilities across the country following natural disasters
  - CenterPoint Energy sends linemen 4-6 times per year to help other utilities restore power
- In addition to linemen and local contractors, our EOP includes virtually all Houston employees, even those who do not work in the field
- Contracts for fuel, lodging and materials are executed in advance so we're ready for a storm
- The goal of our EOP is to restore service to our customers safely, quickly and efficiently





#### Hurricane Harvey – A Record-breaking Storm

After making landfall as a **Category 4** storm near Port Aransas, Texas, Hurricane Harvey stalled, impacting south Texas, southeast Texas and Louisiana for days



Maximum sustained winds were 130 mph at landfall



**51.88 inches** of rainfall in southeast Texas, breaking the single-storm record of 48 inches set in 1978 and more than 10-year annual average More than **42,000** lightning strikes across electric service territory



Harvey **spawned tornadoes** in southeast Texas, Louisiana, Alabama, Mississippi, Tennessee and North Carolina

#### BAYTOWN NEAR HWY 24161

8

#### Baytown near hwy

#### Reed rd staging site

#### Impact of Grid Modernization

Benefits of Advanced Metering System and Intelligent Grid

- The Smart Grid, including distribution automation devices such as intelligent grid switches, allowed us to quickly isolate problems on our grid and restore service to customers through those devices.
  - Operated more than 250 of these devices during the event impacting more than 140,000 customers
  - Were able to avoid almost 41 million outage minutes for our custom
  - 16.71 SAIDI minutes saved due to automation
- AMS meters increased efficiency during the storm
  - Executed **45,000 orders** remotely at **97% performance**
  - Billed 700,000 accounts with actual readings at 98.9% perform
  - Executed remote turn off/on for safety reasons
- Use of real-time analytics to assess, monitor and resolve cases
  - Aided in developing better situational awareness
  - Allowed us to correlate weather and flooding information with outages, providing operations with critical decision-making tools



#### Impact of Grid Modernization

- Use of Technology during Storm
  Drones helped to assess damage and evaluate work conditions
  - More than **500 locations** were tracked using **15 drones**
  - Enabled real-time situational awareness, accelerating restoration assessment
  - Allowed us to efficiently direct crews to accessible locations
  - Infrared capabilities helped identify equipment that needed further inspectid
- Mobile data on each crew kept outage management efficient
- Ability to use **Power Alert Service (PAS)** to keep customers informed
  - AMS meters provide outage information that enables our predictive analytics engine to supply data to PAS and IVR systems, ultimately allowing for better, more d
- Memorial mobile substation
  - Memorial substation impacted by several feet of water
  - **50MVA** mobile substation installed on private property in **7 days**
  - Provided service to more than **9,000 customers** without power
- Flood wall at Grant substation helped protect service to Texas Medical Center





12

### Harvey by the Numbers

Electric Operations Response

- 293 total electric circuits locked out and 4,494 total electric fuses out
- 8 substations out of service and 9 substations inaccessible due to high water
- More than 2,200 employees plus 1,500 contractors & mutual assistance personnel from 7 states
- 308 SAIDI minutes with 1.2 million customers impacted
- 755 million total minutes out over 10 days



#### Harvey by the Numbers

Electric Operations Response

- **5** staging sites
- **352,000** total hours worked during EOP event (160 hours per employee)
- Approximately **85 crew spokespersons** used
- 104,412 meals served
- More than **12,000** hotel room utilized



#### Harvey by the Numbers

Electric Operations Response

- More than **1.27** million total restorations
- More than 1,200 safety orientations and 120 crew safety observations
- **36** air boats, **15** drones and **15** amphibious vehicles used







#### Communication was crucial

- 352,629 outage notifications delivered through Power Alert Service<sup>sm</sup>
- 160 Facebook posts reached • 1,095,314 people
- 566 tweets reached • **2,531,685** people
- 868,872 visits to CenterPointEnergy.com
- At the height of the storm, • web traffic was more than 600% higher than average
- Translated more than **50** communications into Spanish

CenterPoint. Energy To: The Smith Family We are aware of a power issue at or near 2111 Anystreet that is currently affecting 203 customers. We estimate that we will complete our repairs ov 10:07 AM.



Helping

Rebuild

WAYS THER

#### Post storm - survey showed goodwill earned from nications and operations response

Response Survey: 82% 86% say we have hardfelt we were working, caring ready for the 97% employees storm 88% of Spanish of respondents felt speakers held a their opinion *improved* due to our positive view of storm response. the company said we provided useful information vs. said they can trust only 4% who said **CenterPoint** 80% communications Energy were poor feel that we are dedicated to solving problems



## Grid strengthening After the storm



#### Transmission hardening

- Strategic replacement of all wooden H-frame structures with steel or concrete in conjunction with system upgrades
- Replacement of damaged structures crossing major waterways
- Defined 69kV to 138kV conversion strategy to replace aging facilities
- Anti-cascading designs for transmission lines
- Anti-galloping device installations based on icing conditions
- Underground transmission strategy





### Substation hardening

- Raised elevations of substation equipment and installed flood walls
- Enhanced mobile substation and relay control capabilities
- Reviewed spare transformer strategy
- Upgraded security at NERC 345kV and mission critical substations
  - Installed Videofied, upgraded to IP, upgraded security fencing
- Use only monitoring pilot for autotransformers
- Longer range planning for substation sites



#### Distribution hardening

- Evaluating construction standards based on NESC extreme wind loading
- Implementing:
  - Increased size of poles in key locations and reduced span lengths
  - Increased pole setting depth
  - Increased pace of Intelligent Grid Switching Device (IGSD) installations
  - ROAMES technology pilot
  - Revised VM contractor utilization and increased use of analytics for prioritization
  - Augmented distribution inspection programs – poles, guy wires, distribution equipment



CenterPoint Energy service area vs. NESC Extreme Wind Loading Map

#### Major underground hardening

- Enhanced resilience strategies for dedicated major underground areas i.e. Texas Medical Center (TMC)
  - - Reviewing additional substation sites possible **GIS**
    - New TMC 500 ft. flood plain elevation requirement established after Tropical Storm Allison
    - Elevated ancillary service switch rooms to avoid circuit level events
- Standard service criteria for commercial services – reduces number of large overhead transformer banks
- MUG transformer inspection program



### Redundancy, digital, and analytics

- Redundancy of control center operations at Addicks Operations Center (AOC)
- Real-time operational situational awareness
- Integration of data from grid sensors and s<sup>on</sup> better outage<sup>Level</sup> Active Events 89 Customers Out 332 Referrent
- Programmati relay infrastru



101



#### Mobile command centers



#### Post-harvey industry collaboration

- Close collaboration with Public Utility Commission for after-action reviews
- Coordinate with other industry groups in lessons learned activities
  - Edison Electric Institute
  - Southeastern Electrical Exchange
  - Association of Edison Illuminating Companies
  - Texas Mutual Assistance Group

