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November 25, 2020

Lora W. Johnson, CMC, LMMC
Clerk of Council
Room 1E09, City Hall
1300 Perdido Street
New Orleans, LA 70112

**Re: 2021 TRIENNIAL INTEGRATED RESOURCE PLAN
OF ENTERGY NEW ORLEANS, LLC
Council Docket No. UD-20-02**

Dear Ms. Johnson:

Entergy New Orleans, LLC ("ENO") respectfully submits its December 9, 2020 Technical Meeting No. 1 Materials in the above referenced docket. As a result of the remote operations of the Council's office related to Covid-19, ENO submits this filing electronically and will submit the original as well as the requisite number of hard copies once the Council resumes normal operations, or as you direct. ENO requests that you file this submission in accordance with Council regulations as modified for the present circumstances.

Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "K. Silas".

Kimberly R. Silas

KRS/amb
Enclosures

cc: Official Service List via email



***ENO 2021 IRP
Technical Meeting #1***



WE POWER LIFESM

December 9, 2020

Goals and Agenda of Technical Meeting #1

Goals

- As described in the Initiating Resolution (R-20-257), the main purpose of this meeting is for ENO, the Advisors, and Intervenor to discuss Planning Scenarios and Strategies with a view towards reaching consensus on the Scenarios and Strategies to be used in developing the 2021 IRP. Scenarios and Strategies are to be finalized no later than at Technical Meeting #3.
- ENO will present its proposed reference and alternative Planning Scenarios and its proposed least-cost and RCPS/Council Policy Planning Strategies.
- Prior to the meeting, Intervenor should have discussed among themselves their priorities regarding Planning Scenarios and Strategies.
- Should the parties not agree that the proposed Scenarios and/or Strategies, or any Scenarios and/or Strategies developed during Technical Meeting #1, will adequately capture the Intervenor's point of view, the Intervenor shall prepare and submit, with the Advisors' assistance as needed, their proposed Planning Scenario and/or Strategy before Technical Meeting #2.

Agenda

1. 2021 IRP Objectives
2. Analytical Framework
3. Inputs and Assumptions
4. Resource Options
5. Timeline

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WE POWER LIFESM



Section 1

2021 IRP Objectives

ENO Planning Objectives

The 2021 IRP process seeks to identify a range of possible approaches to serving the electricity needs of ENO customers over the period 2022-2041 while addressing three main planning objectives: **reliability, affordability, and policy considerations**



In the 2021 IRP, ENO will consider the ongoing evolution of the utility industry

Customer Preferences

ENO's planning processes seek to address changing customer needs. Planning processes and tools will continue to evolve to help identify customer needs and wants.

Advancing Technologies

Ever advancing technology provides new opportunities to meet future customer needs reliably and affordably. Planning processes strive to understand these technological changes in order to enable us to design optimal portfolios of resources and services.

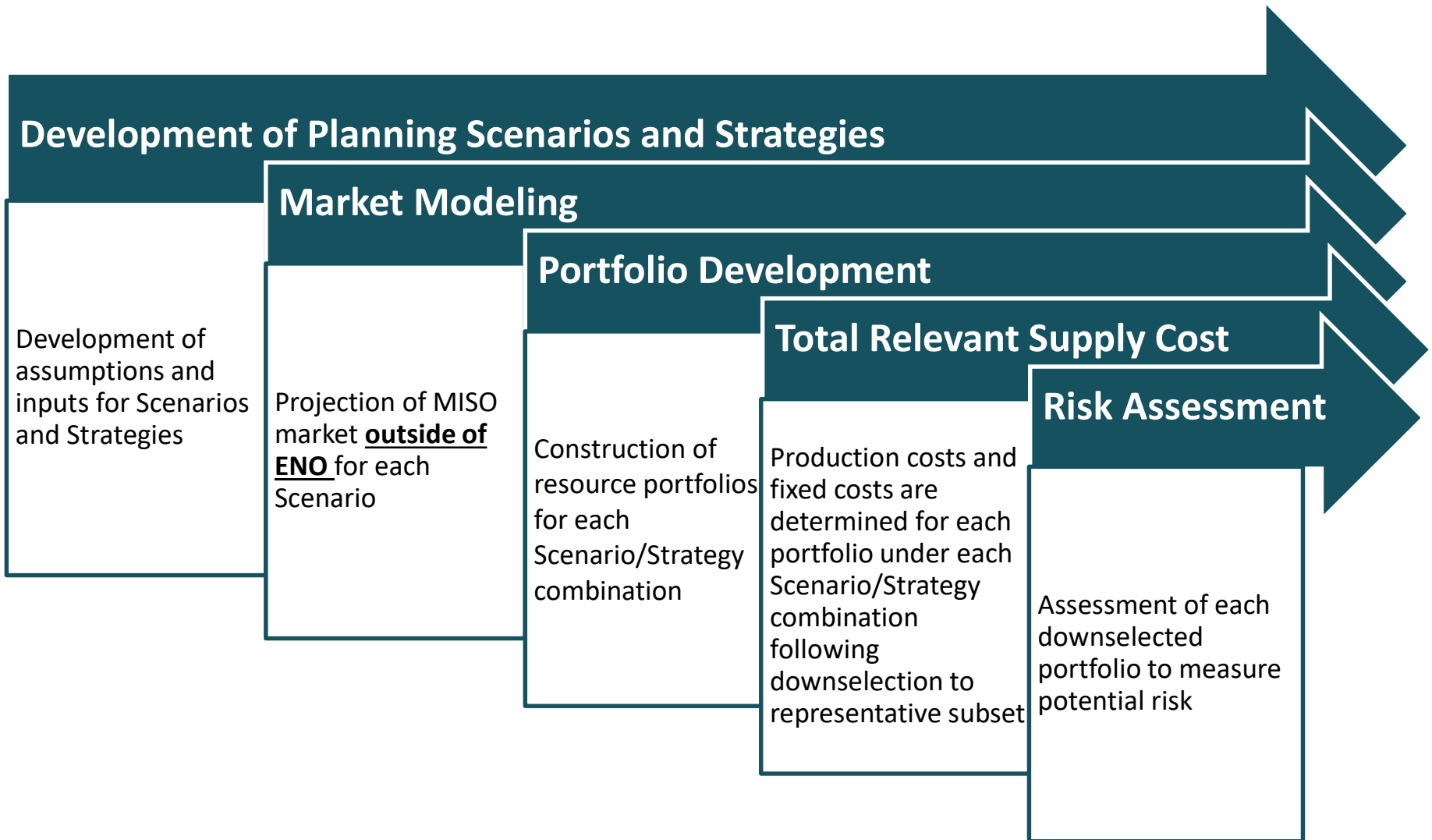
Grid Modernization

ENO's distribution planning process will need to accommodate the integration of distributed energy resources safely and securely so they can be interoperable with the grid.

Section 2

Analytical Framework

Analytic Process to Create and Value Portfolios



ENO Planning Scenarios—Proposed

	Scenario 1	Scenario 2	Scenario 3
Description	Reference	Current Environment Persists	Economic Growth with an Emphasis on Renewables
Peak / Energy Load Growth	Reference	Reference	High
Natural Gas Prices (Levelized Real, 2021\$/MMBtu)	Reference	Low	High
DR / EE / DER Additions	Medium	Low	Medium
Market Coal Retirements	Reference (60 years)	Reference (60 years)	Accelerated (50 years)
Legacy Gas Fleet Retirements	Reference (60 years)	Reference (60 years)	Accelerated (50 years)
Magnitude of Coal & Legacy Gas Deactivations	23% by 2030 69% by 2040	23% by 2030 69% by 2040	67% by 2030 89% by 2040
CO2 Reduction Target (Levelized Real, 2021\$/short ton)	Reference	None	High

If necessary, a fourth Stakeholder Scenario will be modeled.

ENO Planning Strategies—Proposed

	Strategy 1	Strategy 2	Strategy 3
Description	Least Cost Planning	But For RCPS	RCPS Compliance
Resource Portfolio Criteria and Constraints	Meet long-term Planning Reserve Margin (PRM) target using least-cost resource portfolio of supply and DSM resources.	Include a portfolio of DSM programs that meet the Council’s stated 2% goal and determine remaining needs.	Include a portfolio of DSM programs that meet the Council’s stated 2% goal and determine remaining needs in compliance with RCPS policy goals.
Objective	Assess demand- and supply-side alternatives to meet projected capacity needs with a focus on total relevant supply costs.	Design a portfolio that includes a set of potential DSM programs intended to meet the Council’s stated 2% goal.	Design a portfolio that includes a set of potential DSM programs intended to meet the Council’s stated 2% goal. Excludes resources that would not be RCPS compliant.

If necessary, a Stakeholder Planning Strategy will be modeled.

MISO Market Modeling and Total Relevant Supply Cost Calculation

1 Market Model Set-Up

- Develop projection of MISO market outside ENO for each Scenario
 - MISO reserve margin target (based on MISO summer peak load and Resource Adequacy process)
 - Build out MISO resource pool to achieve economic resource mix per Scenario

2 Initial Production Cost Simulation

- Using AURORA production cost model, simulate MISO market to generate market price curve (i.e., LMPs) for each Scenario

3 Development of Portfolios using either AURORA or Manual Process

- Use AURORA capacity expansion model to select demand- and supply-side alternatives to create ENO portfolios for each Scenario/Strategy combination
 - ENO long term planning reserve margin assumption
 - Portfolio addition decisions based on value of supply additions
- If the capacity expansion model is unable to select resources required by a particular Strategy consistent with identified resource needs, develop manual portfolios using defined constraints and professional judgment

4 Final Production Cost Simulations and Total Relevant Supply Cost Calculations

- Compute variable supply costs for each downselected portfolio in each of the Scenarios/Strategies using detailed MISO Zonal Model in AURORA
- Calculate Total Relevant Supply Cost for each downselected portfolio
 - Includes: variable supply costs, cost of DSM programs, incremental non-fuel fixed costs, and capacity purchases

Assessment of Portfolio Performance Across Scenarios

- Portfolios developed for each Scenario/Strategy combination will be tested across all other Scenarios to assess performance in a range of possible outcomes
- The total relevant supply cost of each of the Scenario/Portfolio combinations represents the present value of fixed and variable costs to customers in 2021\$

ILLUSTRATIVE ONLY—Actual number of Scenario/Portfolio combinations TBD

Portfolios Scenarios	Strategy 1 (Least Cost)				Strategy 2 (But For RCPS)				Strategy 3 (RCPS Compliance)			
	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Port 7	Port 8	Port 9	Port 10	Port 11	Port 12
Scenario A	R _{A1}	R _{A2}	R _{A3}	R _{A4}	R _{A5}	R _{A6}	R _{A7}	R _{A8}	R _{A9}	R _{A10}	R _{A11}	R _{A12}
Scenario B	R _{B1}	R _{B2}	R _{B3}	R _{B4}	R _{B5}	R _{B6}	R _{B7}	R _{B8}	R _{B9}	R _{B10}	R _{B11}	R _{B12}
Scenario C	R _{C1}	R _{C2}	R _{C3}	R _{C4}	R _{C5}	R _{C6}	R _{C7}	R _{C8}	R _{C9}	R _{C10}	R _{C11}	R _{C12}
Scenario D	R _{D1}	R _{D2}	R _{D3}	R _{D4}	R _{D5}	R _{D6}	R _{D7}	R _{D8}	R _{D9}	R _{D10}	R _{D11}	R _{D12}

Note: “R” = resulting total relevant supply cost

Section 3

Inputs and Assumptions

2021 IRP Inputs and Assumptions

- **The IRP analysis will rely on a variety of inputs, including:**
 - Planning Scenarios and Strategies
 - Gas Price Forecast
 - CO2 Price Forecast
 - Capacity Value Forecast
 - ENO Load Forecast and Long-Term Capacity Need
 - DSM Potential Study Input Cases
- **Several of these inputs will also have sensitivities used in the analysis (e.g., gas price, CO2 price)**
- **IRP will use Business Plan 2021 values once finalized in 1Q2021**

2021 IRP Inputs and Assumptions

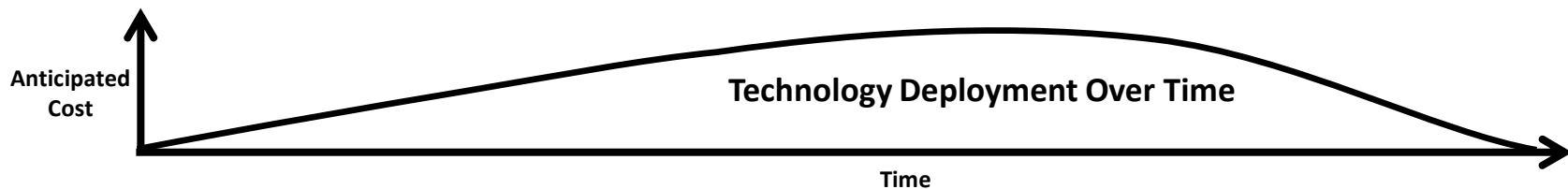
Input/Assumption	MISO Market Modeling	Portfolio Development	Total Relevant Supply Costs
Planning Scenarios	✓	✓	✓
Gas Price Forecast	✓	✓	✓
CO2 Price Forecast	✓	✓	✓
Load Forecast	✓	✓	✓
Planning Strategies		✓	✓
Capacity Value		✓	✓
Supply-Side Resource Alternative Costs		✓	✓
ENO's Long-Term Capacity Need		✓	✓
DSM Potential Study Results		✓	✓
Input Sensitivities			✓

Section 4

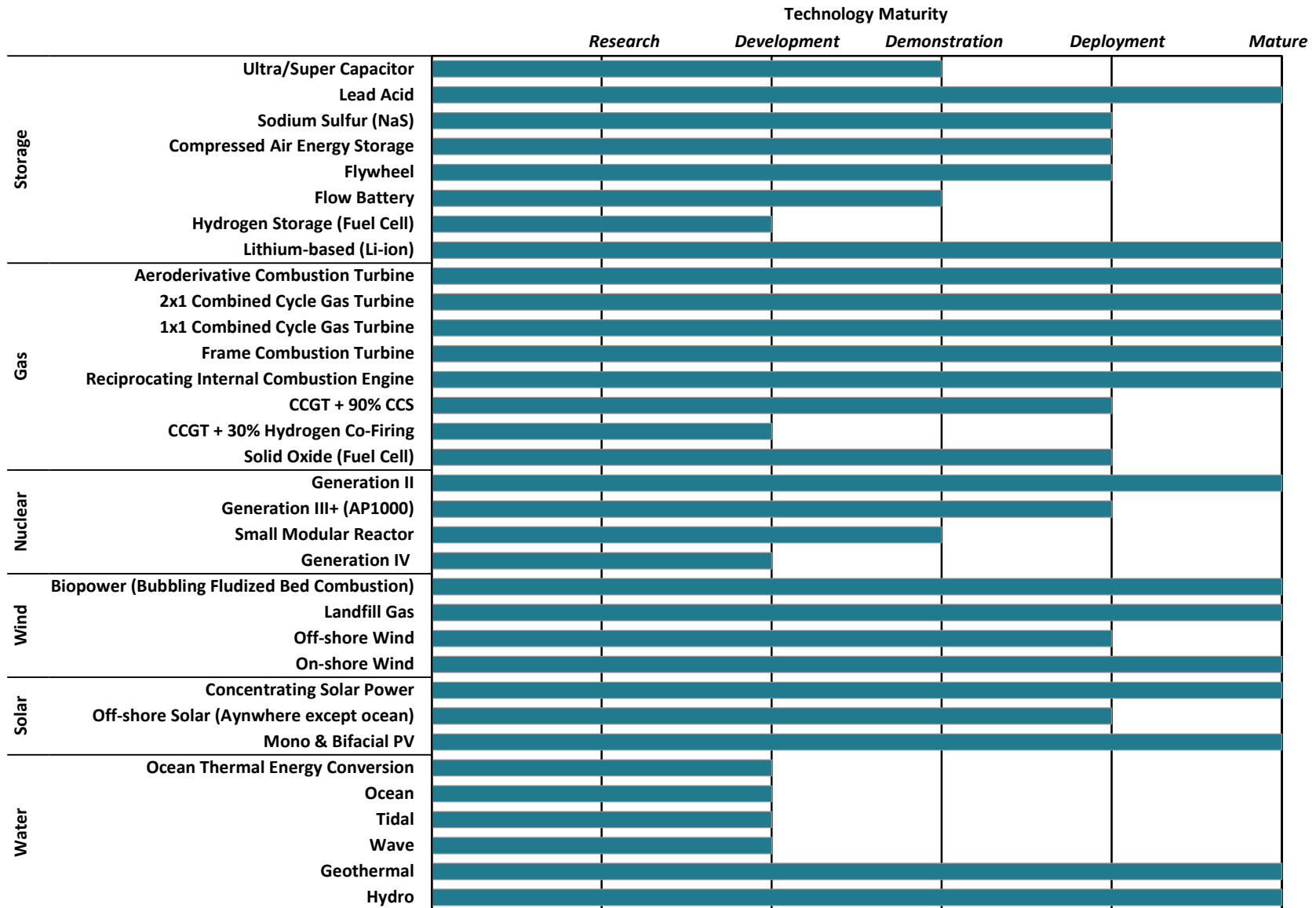
Resource Options

Technology Assessment Purpose & Process

- Generation technology costs and operational characteristics are necessary inputs to resource planning and portfolio development.
- The process to evaluate generation includes surveying supply-side resource alternatives to meet supply needs. A subset of alternatives are retained to further understand costs and operational characteristics to be considered for meeting planning objectives.
 - Alternatives considered within the IRP are typically technologically mature and could reasonably be expected to be operational in or around the Entergy service territory given existing cost and performance factors.
 - This process also identifies technologies that, depending on the evolution of cost and performance factors, show promise for future deployment and may be considered as alternatives later in the IRP evaluation period, or should continue to be further monitored.



Potential Supply-Side Resource Alternatives (Illustrative)



DSM Potential Studies

- **ENO and Council both having DSM Potential Studies developed**
 - Long term (2021-2040) EE and DR Potential in Orleans Parish
- **Study results to be structured into input cases for use in Aurora**
- **ENO study to produce multiple input cases**
- **DSM Studies will use BP2020 inputs to meet schedule requirements**
- **DSM Studies currently due to be filed by March 1, 2021**
- **Each Planning Strategy will require an assigned DSM Input Case**

Section 5 Timeline

Current Timeline

Description	Target Date	Status
<i>Public Meeting #1- Process Overview</i>	September 2020	✓
<i>Technical Meeting #1 Material Due</i>	November 2020	✓
<i>Technical Meeting #1</i>	December 2020	✓
<i>Technical Meeting #2 Material Due</i>	March 2021	-
<i>Technical Meeting #2</i>	March 2021	-
<i>Technical Meeting #3 Material Due</i>	May 2021	-
<i>Technical Meeting #3</i>	June 2021	-
IRP Inputs Finalized	June 2021	-
<i>Optimized Portfolio Results Due</i>	October 2021	-
<i>Technical Meeting #4 Material Due</i>	October 2021	-
<i>Technical Meeting #4</i>	October/November 2021	-
<i>File IRP Report</i>	January 2022	-
<i>Public Meeting #2 Material Due</i>	January/February 2022	-
<i>Public Meeting #2 - Present IRP Results</i>	February 2022	-
<i>Intervenors and Advisors Questions & Comments Due</i>	February 2022	-
<i>ENO Response to Questions and Comments Due</i>	February 2022	-
<i>Public Meeting #3 Material Due</i>	February/March 2022	-
<i>Technical Meeting #5 Material Due</i>	February/March 2022	-
<i>Public Meeting #3 - Public Response</i>	March 2022	-
<i>Technical Meeting #5</i>	March 2022	-
<i>ENO File Reply Comments</i>	May 2022	-
<i>Advisors File Report</i>	June 2022	-

CERTIFICATE OF SERVICE
DOCKET NO. UD-20-02

I hereby certify that I have served the required number of copies of the foregoing report upon all other known parties of this proceeding, by the following: electronic mail, facsimile, overnight mail, hand delivery, and/or United States Postal Service, postage prepaid.

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New Orleans, Louisiana, this 25th day of November 2020.



Kimberly R. Silas