Enchant Energy
City of Farmington

San Juan Generating Station
Carbon Capture Project

December 9, 2020

ENCHANT ENERGY
CORPORATION

26th Annual CO_2 Conference
Presented Both Live and Virtually

Presented at the 26th Annual CO_2 Conference
Tuesday - Thursday Dec 8th-10th, 2020

Bush Convention Center
Midland, Texas

2020 CO_2 Conference

Enchant Energy Team and Strategy

Enchant Energy Corporation and Management Team

- **Formed in 2019 to Develop Decarbonization Projects for Coal-Fired Power Plants**
- **Cindy A. Crane, Chief Executive Officer**

  Former President and CEO of Rocky Mountain Power, she had a 27-year career at PacifiCorp, a subsidiary of Berkshire Hathaway, and brings broad energy and electric utility experience across thermal electric generation, wind generation, nuclear energy, coal mining, and hydroelectric generation. While at Rocky Mountain Power, she was responsible for 9,000 megawatts of thermal generation in seven western states. She also serves as the Chair of the School of Energy Resources at the University of Wyoming, and Chair of the Salt Lake City, Utah Olympic Games Committee

- **Peter Mandelstam, COO and Chief Development Officer**

  Thirty years of experience as the founder and or CEO of several wind and non-profit solar project development companies including GRID Alternatives Tri-State Inc., Green Sail Energy LLC, Bluewater Wind LLC, and Arcadia Windpower Ltd. AB in Government; 1983 Harvard University

Strategic Forces Driving Company

- Opportunity Drivers
  - Numerous opportunities for addition of carbon capture technology at coal-fired power plants across the U.S.
  - Proven and increasingly effective and cost-efficient amine-based carbon capture technology
  - Improved 45Q tax credits which expands financing opportunities for projects
  - Change in regulatory incentives and risks for existing coal-plants, creating opportunities to acquire coal-fired power plants at favorable prices (no undepreciated asset burden)
  - Location of plants relative to transmission and markets
- Enchant Energy plans to develop 3-6 additional carbon capture project in North America representing over $5 billion of investment
  - Independent developer model will allow the remaining power plant owners to decarbonize their power and will facilitate the exit of some owners so that their share of power can be used in the carbon capture process
  - Repeatable model for project development reduces overall risk, lowers costs, and is attractive to investors
- Our Post-Carbon-Capture model is simple:
  - Three revenue streams (45Q tax credits, carbon dioxide sales and electricity sales)
  - CO_2 sales and 45Q tax credit MORE than fund the Carbon Capture Island and associated CO_2 pipeline
  - Carbon capture entity becomes “anchor customer” for coal-fired power plant, lowers plant costs (not parasitic load)
  - Power Plant markets remaining output = low-carbon power = lower prices than pre-carbon-capture
- Result is economic model that encourages plant to run much more than under cost of service utility model
- Ability for investors to earn attractive risk adjusted rates of return

Carbon Capture Insights

Carbon Capture Development Opportunities

- Great Plains Institute/University of Wyoming has identified 58 coal-fired and 60 gas-fired power plants that are suitable for decarbonization with proven carbon capture technology. If 20% of these targets install carbon capture, there will be approximately $10 billion of EPC work and $10 billion of tax equity and project financings
- Plants in states with existing CO_2 pipelines and oil fields using EOR such as Texas, New Mexico, Colorado, Wyoming, Montana, and North Dakota are most likely to be developed
- The DOE has commissioned feasibility studies for carbon capture retrofits on several of these plants, but the projects have not developed as utilities are risk averse, have no experience financing projects in tax equity markets, and do not have an appetite for 45Q tax credits. In addition, many plants have multiple owners some of which are being forced to divest or abandon their interests due to Renewable Portfolio Standards or limits for purchase of high carbon intensity power

Cost/Risk of Carbon Capture Technology has Decreased

- Cost of CO_2 Capture has decreased by 30% since Petra Nova and 65% since the Boundary Dam Carbon Capture Project
- When Cost of Capture is less than $50 per ton, retrofit projects can be fully financed using 45Q Tax Credits
- 45Q tax credits were upgraded in the Bi-Partisan Tax Bill of 2018 and provides for $35 per metric tonne for CO_2 used in Enhanced Oil Recovery (EOR) and $50 per metric tonne of CO_2 immediately stored in a non-EOR reservoir
- CO_2 sold to EOR produces $13-23 per metric tonne in additional cash revenues
- Enchant is pursuing in parallel both EOR and direct sequestration

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Potential Projects Widely Dispersed

Figure i. Emitting facilities: 45Q Eligibility and near-term capture opportunities

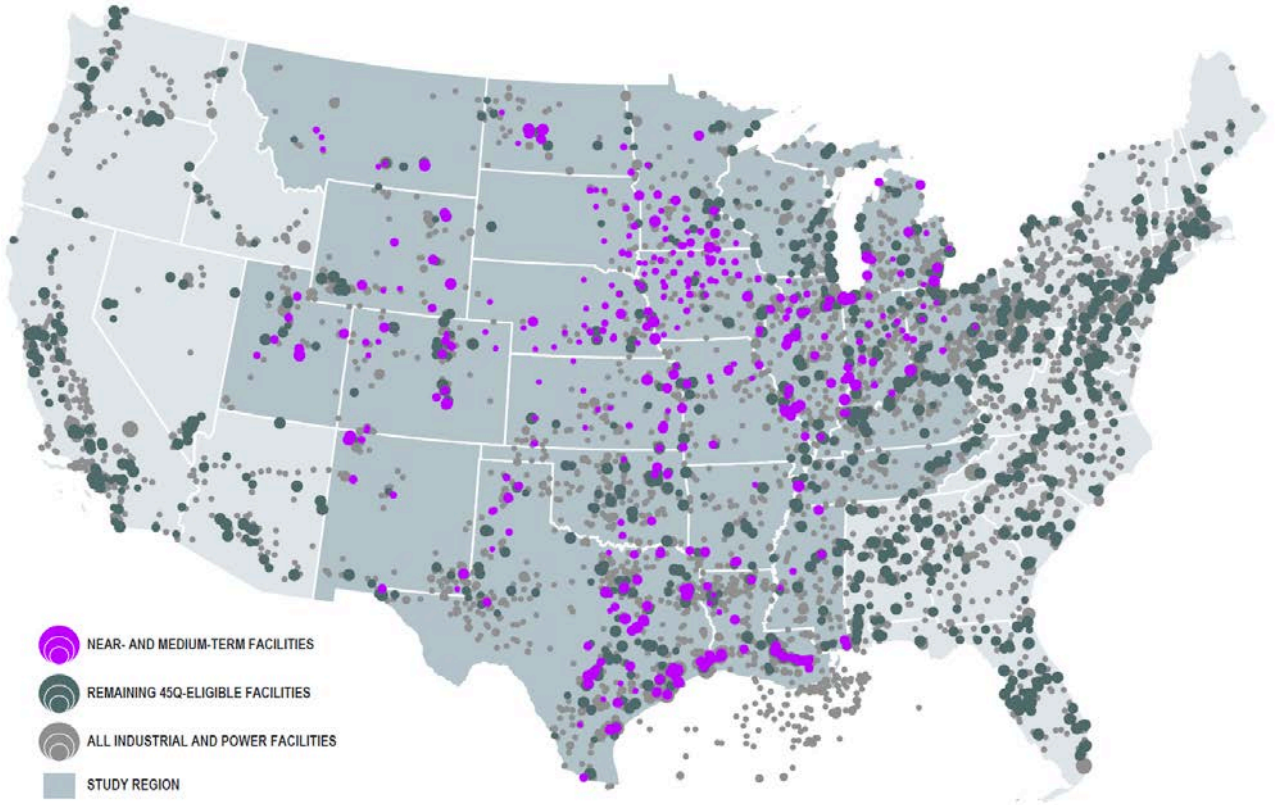

Figure authored by GPI based on data from EPA FLIGHT 2018.

Source: Transport Infrastructure for Carbon Capture and Storage "WHITEPAPER ON REGIONAL INFRASTRUCTURE FOR MIDCENTURY DECARBONIZATION" Authored by Elizabeth Abramson and Dane McFarlane Great Plains Institute, Jeff Brown University of Wyoming, JUNE 2020

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Coal Power Plants are Leading 45Q Opportunity

Table i. 45Q-Qualifying facilities and emissions by industry

Industry	Number of Facilities	Share of 45Q-Eligible Facility Emissions	CO_2	Biogenic CO_2	Methane	Nitrous Oxide
Coal Power Plant	308	53.8%	1,269.6	0.3	3.0	6.2
Gas Power Plant	571	23.8%	565.4	0.7	0.4	0.4
Refineries	78	6.9%	163.3	-	0.6	0.4
Cement	135	3.7%	88.8	0.9	0.1	0.2
Hydrogen	57	2.7%	64.3	-	0.1	0.1
Steel	31	2.3%	54.0	-	0.2	-
Ethanol	173	1.3%	31.0	8.97	0.1	0.1
Ammonia	21	1.2%	25.1	0.0	0.0	4.1
Petrochemicals	30	1.1%	26.0	0.1	0.4	0.1
Metals, Minerals & Other	37	0.9%	19.5	-	0.4	-
Gas Processing	40	0.9%	19.9	-	0.7	-
Chemicals	16	0.8%	8.7	-	0.0	10.4
Pulp & Paper	18	0.4%	7.8	25.5	2.4	0.1
Waste	2	0.1%	0.8	1.2	0.6	-
Grand Total	**1,517**	**100%**	**2,344.2**	**29.3**	**9.1**	**22.1**

All emissions are in million metric tons.

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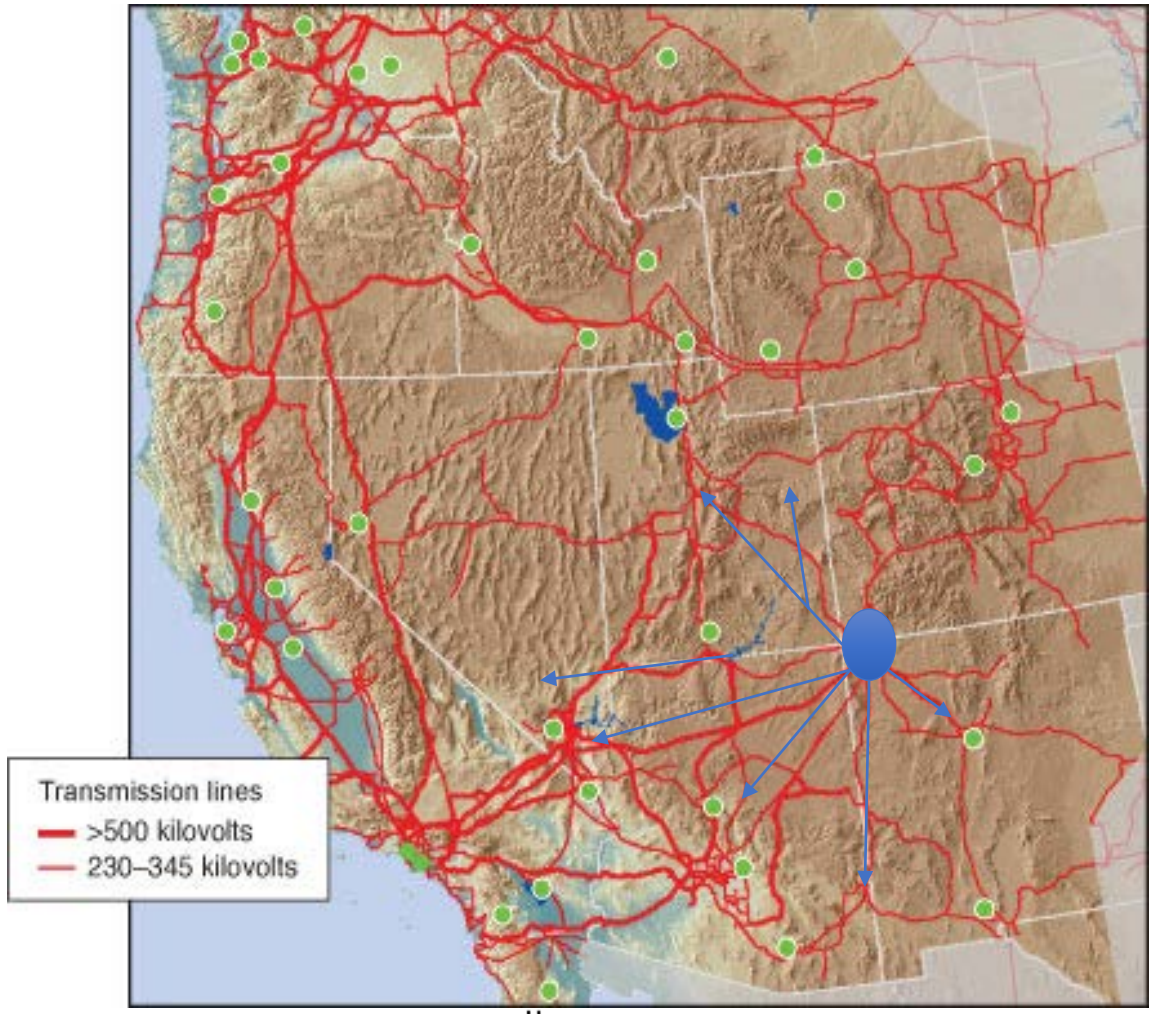
Initial Project:
San Juan Generating Station (SJGS)

Why San Juan Generating Station?

- 847 MW (net) coal-fired, electricity-producing San Juan Generating Station (SJGS) in Northwest New Mexico originally built in the 1970s, expanded in the 1980s
- High BTU Coal - adjacent San Juan coal mine, owned by Westmoreland Mining Holdings
- Low cost generator with low NO_X/SO_2/Mercury/Particulates emissions, but currently significant CO_2 emissions
- Located at the center of the Southwestern transmission grid, with connections to rest of New Mexico, Arizona, California, Colorado, Nevada, and Utah
- Enchant acquires 95% SJGS ownership for $1



CITY OF FARMINGTON NM

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San Juan Generating Station Carbon Capture Project

- Enchant Energy and the City of Farmington have entered into an agreement to transfer the exiting owner's (95%) assets and rights to the San Juan Generating Station, as defined within the agreement(s)
- Enchant Energy has entered into agreements with parties to retrofit the plant with Carbon Capture facilities and construct a carbon dioxide pipeline to transport the captured carbon to sequestration locations; enhanced oil recovery and or direct geologic sequestration:
  - SJGS Operational Performance Study – Navigant Consulting
  - Permitting (Air & NEPA) – Sargent & Lundy
  - DOE $9.4m FEED Study – Sargent & Lundy, Mitsubishi Heavy Industries America
  - DOE $19m CarbonSAFE Phase III, Direct Sequestration - New Mexico Institute of Mining and Technology (NM Tech), and Hilcorp
  - EPC MOU – Kiewit Power Constructors, Mitsubishi Heavy Industries America, Sargent & Lundy
  - Coal Supply Agreement – Westmoreland Mining, San Juan Mine
  - Jobs Training – San Juan Community College
- Enchant Energy has additionally engaged third parties to advance commercial efforts:
  - Development Capital (Equity & Debt) Investment – Baker Tilly
  - Tax Equity Investment – Bank of America
  - Project Debt Financing – DOE Loan Program Office, USDA Rural Utility Services Loan
  - Electricity Offtake – Davis-Consulting

New Mexico Energy Transition Act (ETA) Compliance

- Under the ETA, the plant will have to comply with a new CO_2 emissions intensity limit of 1,100 lbs. per MWh. SJGS currently has an intensity of 2,200 lbs. per MWh
- ETA implementation regulations have yet to be promulgated
- Farmington & Enchant Energy plan to retrofit the plant with proven, post-combustion Carbon Capture technology from Mitsubishi Heavy Industries America that will lower the CO_2 emissions by 90+%
- Post-retrofit, SJGS will have CO_2 emissions reduced to ~250 lbs. per MWh – becoming Low Emissions Electricity (LEE)
- LEE produces 70% less CO_2 emissions than a typical, new combined-cycle gas turbine (CCGT), and 80% less emissions than a gas peaking plant
- The Project does not require any State or local subsidies

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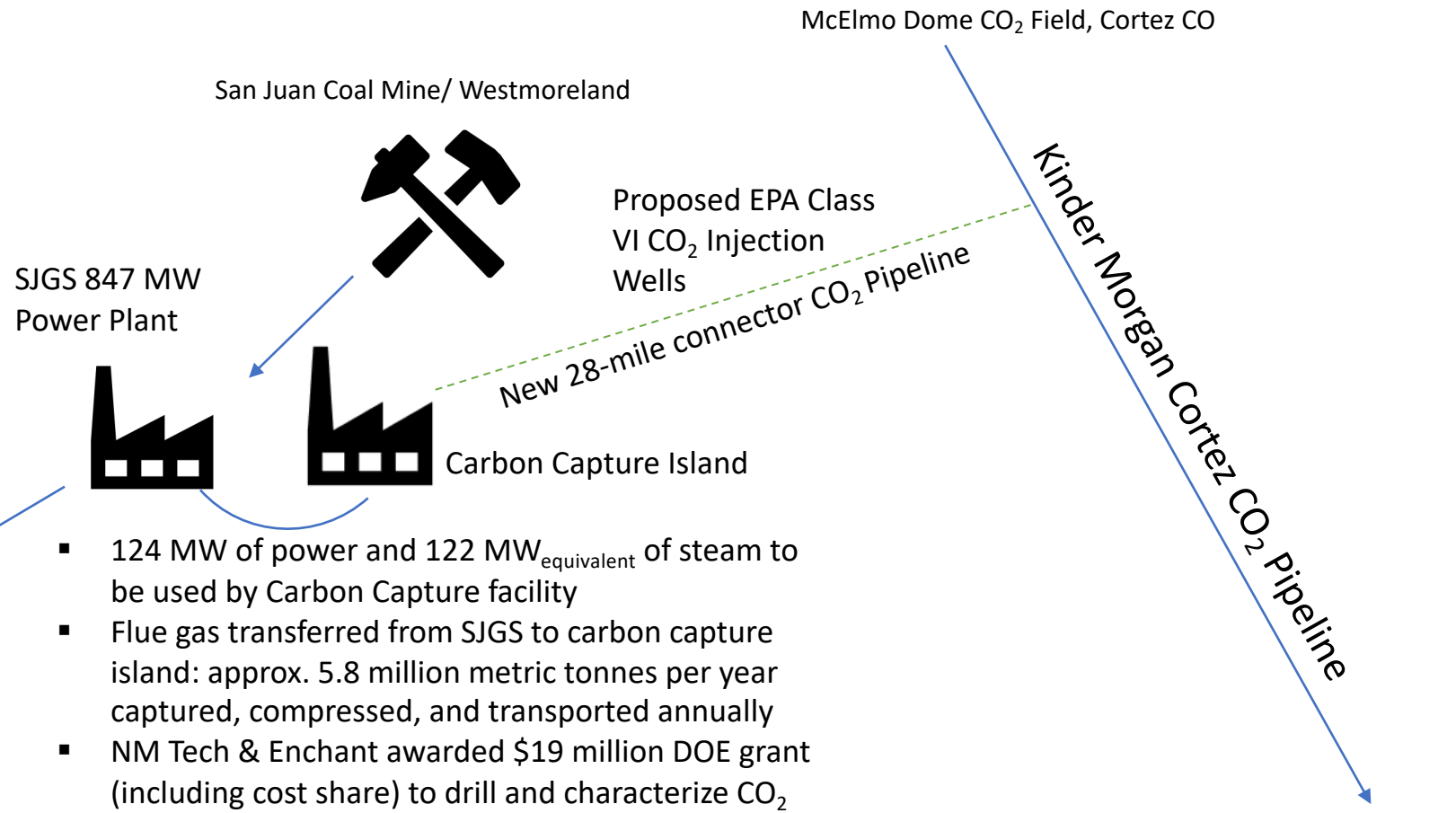
SJGS Carbon Capture Project Schematic



Transmission of electricity under PPAs to customers in Western US. Plan to join regional Energy Imbalance Market (EIM). Exploring bi-lateral electric capacity sales to CA.

- 124 MW of power and 122 $MW_{equivalent}$ of steam to be used by Carbon Capture facility
- Flue gas transferred from SJGS to carbon capture island: approx. 5.8 million metric tonnes per year captured, compressed, and transported annually
- NM Tech & Enchant awarded $19 million DOE grant (including cost share) to drill and characterize CO_2 storage in New Mexico wells, along with partners Schlumberger and Hilcorp
- Cortez pipeline to Permian Basin for Enhanced Oil Recovery (EOR)

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Key Revenues & Costs for SJGS Carbon Capture Project

Project Capital Costs (Current Best Analysis)	
Project Development Cost	$23 million
Power Generation Deferred Maintenance Capital	$140 million
Fixed Priced EPC Contract to Construct Carbon Capture	$1.3 billion
Carbon Dioxide (CO_2) Pipeline Construction Cost	$40 million
Total Project Capital Costs	**$1.5 billion**
CO_2 Captured per Year	5.8 - 6.0 million metric tonnes
Revenues and Tax Credits, Each of 12 Years	
45Q Tax Credits Generated Annually	$160 - $220 million
CO_2 Sales Revenue Annually	$85 - $110 million
Electricity Sales Revenue Annually	$100 - 180 million
Total Revenues and Tax Credits Annually	**$ 345 - $510 million**
Total Lifetime Revenues and Tax Credits	**$4.14 billion - $6.12 billion**

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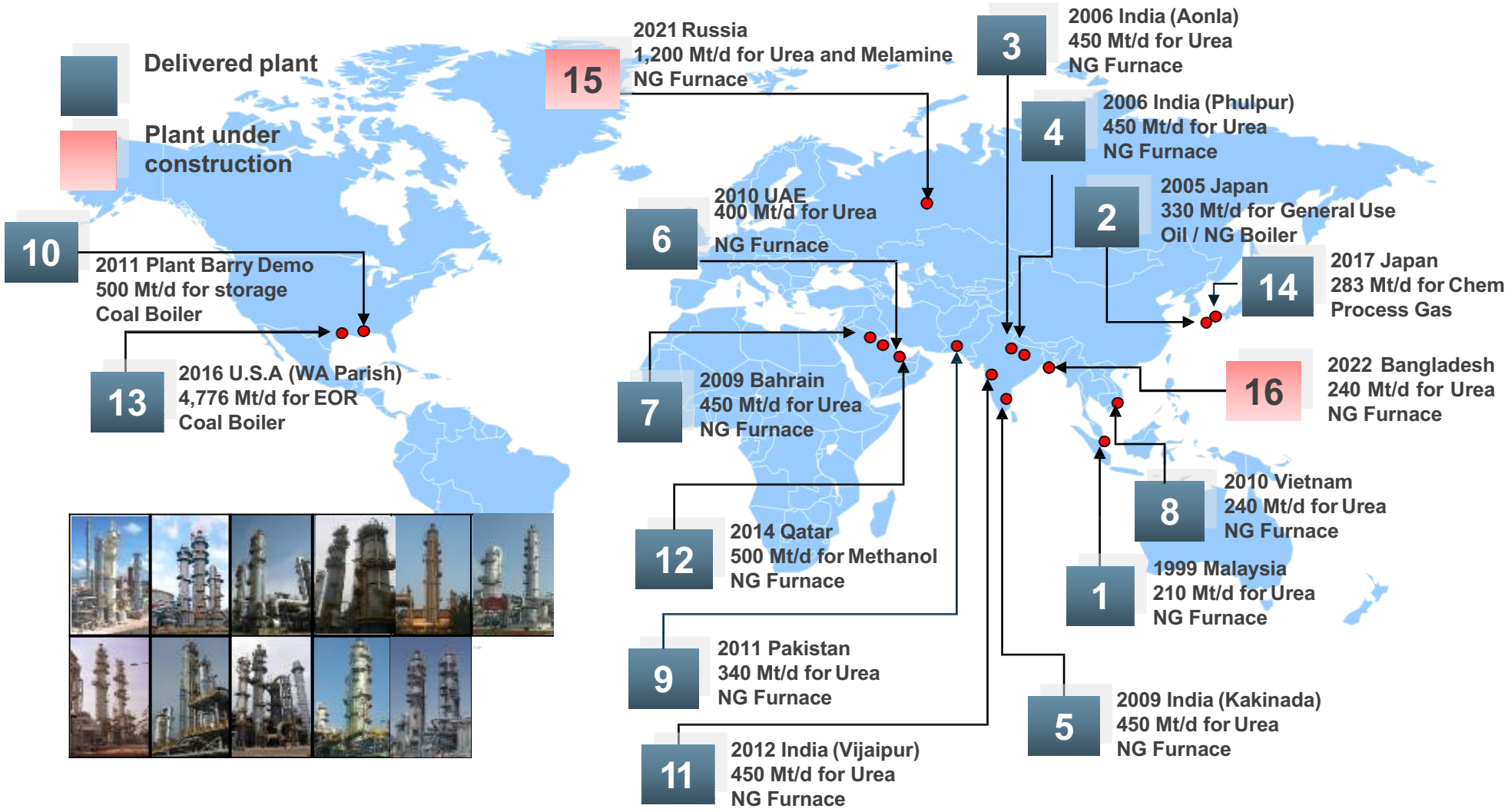
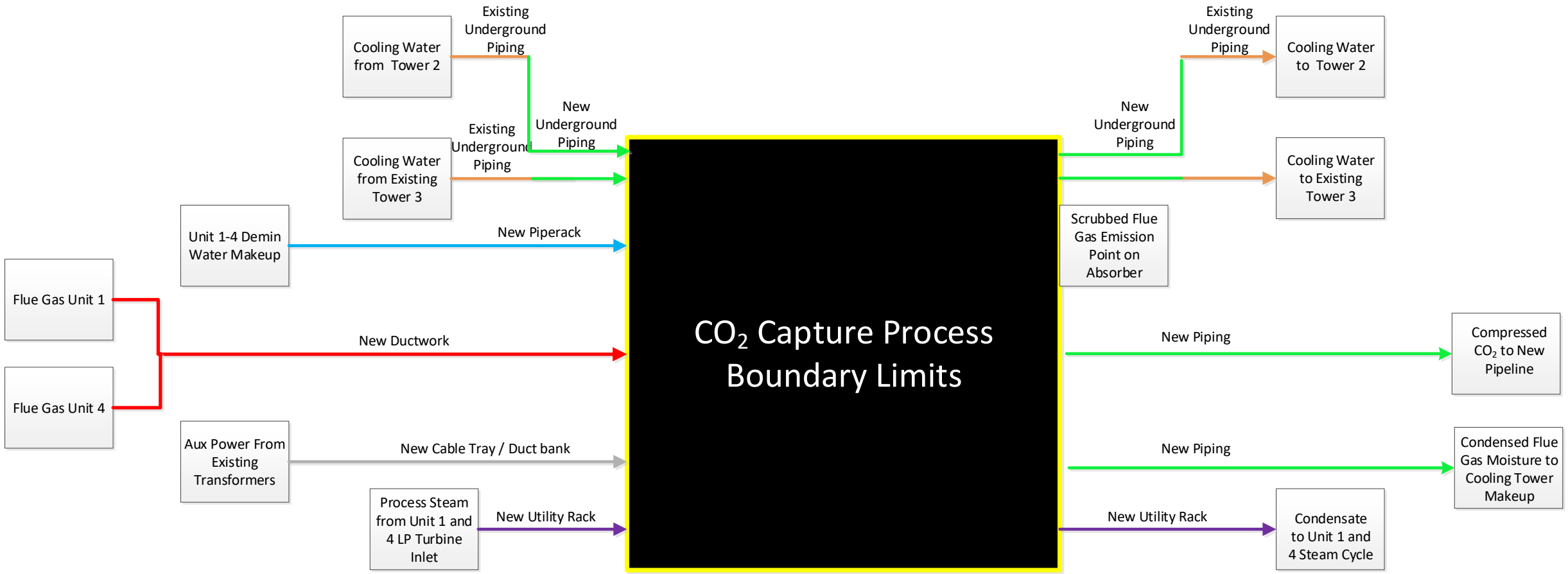
KM CDR Process™ Commercial Experience

MHI is the world leader in large scale CO_2 capture plant deployments.



Project Design Basis – SJGS Plant Integration



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Jobs, Economic Development, and Climate

- Maintain 450 high paying union jobs and an additional ~1000 indirect jobs
- Maintain $53 million annually in annual state and local tax revenues, including critical school district tax revenues
- Construction period jobs in excess of 2 million worker-hours
- Strong benefits to local communities, including communities on Navajo Nation
- Low-emission/carbon power plant, stable reliable low-cost electricity to attract industrial business and jobs

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All Union Work for Carbon Capture Construction

- EPC Team and Labor Leaders have finished negotiating Project Labor Agreement (PLA) for $1.4 Billion Carbon Capture construction
- Enchant has agreed to full union job and PLAs for 1) Significant plant deferred maintenance for SJGS, and 2) Construction of CO_2 Pipeline. Enchant is urging that the sequestration wells be union labor
- Major Trades for Carbon Capture Work include:
  - New Mexico Building Trades Council
  - Boilermakers
  - Plumbers and Pipefitters
  - Electricians
  - Laborers
  - Operators
  - Millwrights
  - Operating Engineers

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Est. Union Work Hrs for Carbon Capture Construction

Trade	Project Work Hours	Annual Full-Time Equivalent Jobs
Boilermakers	500,000	240
Pipefitters	300,000	144
Electricians	500,000	240
Laborers	400,000	192
Operators	200,000	96
Millwrights	100,000	48
	2,000,000	960

Note: There will be significant additional work hours for
A) SJGS deferred maintenance and
B) CO_2 pipeline construction

Milestone Progress and Success (1 of 3)

- **2020**
  - Raise development capital (equity and debt):
    - Co-founders have continued to fund project development
    - Currently have equity investor term sheet proposal for greater than 50% of remaining development funding – scheduled to close by December 2020
    - Active discussions with additional development capital investors
  - Initiated power off-take negotiations:
    - 34% of offtake committed
    - Additional 6% under term sheet, moving to definitive agreement
    - 75 MW and 125 MW on short list for selection, following PPA submission into PNM 2020 Replacement Resource RFP
    - Early-stage discussions in process with several other off-takers & responding to RFPs
  - Initiated CO_2 off-take and associated transportation and storage negotiations:
    - Late-stage term sheet discussions for CO_2 offtake for enhanced oil recovery
    - Early-stage discussions for Carbon Storage operator
  - Initiated coal supply negotiations:
    - Commercial terms under negotiation

Milestone Progress and Success (2 of 3)

- **2020**
  - Initiate Carbon Capture Island Federal and New Mexico State permitting
    - New Mexico Environmental Department (NMED)
      - Kick-off & Pre-application meetings held
      - Second planning period four-factor analysis submitted 7/10/20
        - Comments from NMED received
        - Revised draft submitted 9/1/20 – currently under review
        - Memo requesting concurrence on permitting path submitted 10/23/20
          - Part 72 Construction Permit anticipated
          - S&L currently preparing Part 72 Construction Permit application
    - U.S. Department of the Interior - Bureau of Land Management (BLM)
      - Kick-0ff meeting to introduce project
      - Subsequent meetings to discuss Plan of Development
      - Currently preparing supporting documentation for the project
    - U.S. Department of the Interior – Bureau of Indian Affairs (BIA)
      - Kick-off meeting to introduce project
      - Currently preparing supporting documentation for the project
    - Federal Permitting Improvement Steering Council (FPISC)
      - Monthly meetings to track NEPA progress

Milestone Progress and Success (3 of 3)

- **2020**
  - Secure DOE grant and initiate FEED Study work:
    - DOE Cooperative Funding Award secured ($9.4m w/cost share)
    - Design Basis Completed
    - Stack Testing Completed
  - Secure DOE grant and initiate sequestration well drilling and characterization:
    - DOE Cooperative Funding Award achieved ($19m w/cost share)
    - Partners & team established
    - Location of well identified

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Project Milestones (2021 - 2024)

- **2021**
  - Complete power off-take, CO_2 offtake, and associated transportation and storage agreements
  - Complete coal supply agreement
  - Complete ownership transfer definitive agreements
  - Complete FEED Study
  - Finalize EPC contract negotiations with construction consortium
  - Complete Carbon Capture Island permitting
  - Continue sequestration characterization and Class VI permitting for sequestration wells; drill stratigraphic test well in April
  - Complete project financing
  - Initiate RFP for Plant Operator
  - Commence construction of Carbon Capture Island, if granted permission by current and former owners of SJGS

- **2022 - 2024**
  - Finalize plant operator contracts
  - Transfer SJGS ownership of 95% to Enchant Energy Corporation
  - Complete power plant deferred maintenance construction
  - Energize first of 4 units (trains), and begin commercial operation of Carbon Capture Island
  - Full, 4-train commercial operation of Carbon Capture Island

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Thank You