

# Western EIM Regional Issues Forum

TODD FRIDLEY – PNM VP NM OPERATIONS



Talk to us.



MARCH 11, 2019

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# ABOUT PNM

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## GENERATION



## TRANSMISSION



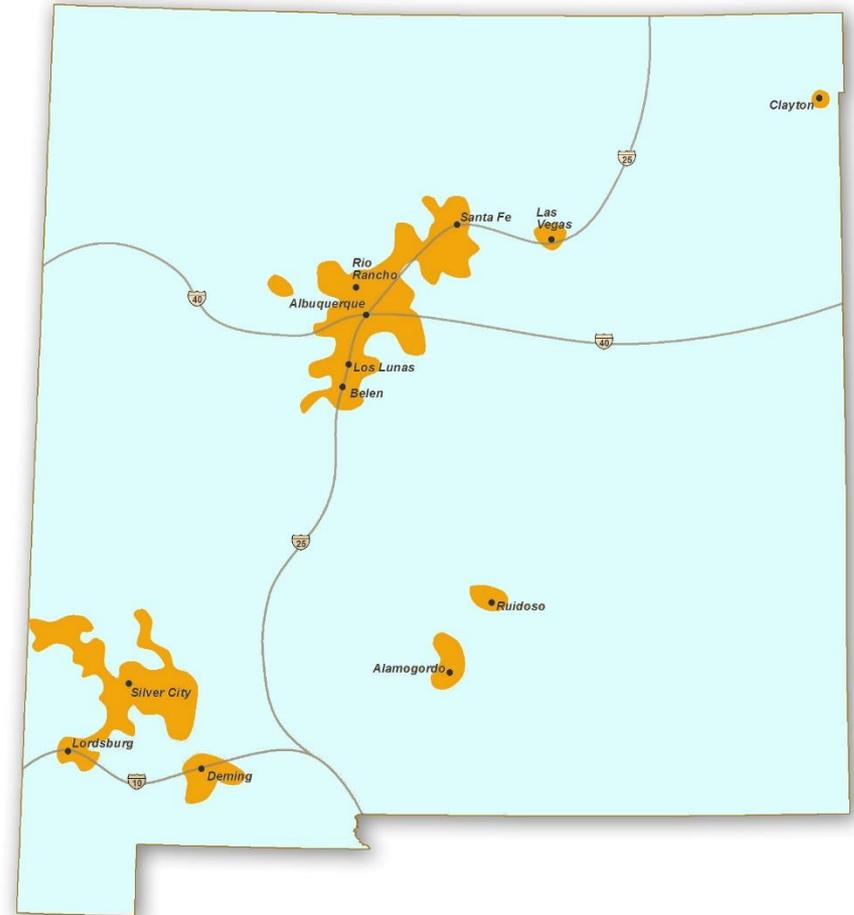
## DISTRIBUTION



# ABOUT PNM

- **FOUNDED 1917**
- **\$1.1B REVENUES<sup>1</sup>**
- **1,327 EMPLOYEES<sup>2</sup>**
- **528,400 CUSTOMERS<sup>1</sup>**
- **2,661 MW GENERATION<sup>3</sup>**
- **15,158 MILES OF TRANSMISSION AND DISTRIBUTION LINES<sup>1</sup>**
- **255 SUBSTATIONS<sup>1</sup>**

1. PNM Resources 10K for PNM fiscal Year Ended 12/31/18
2. Includes 389 PNM Corporate Employees
3. MW PNM generation , including PPA's



# SYSTEM OVERVIEW

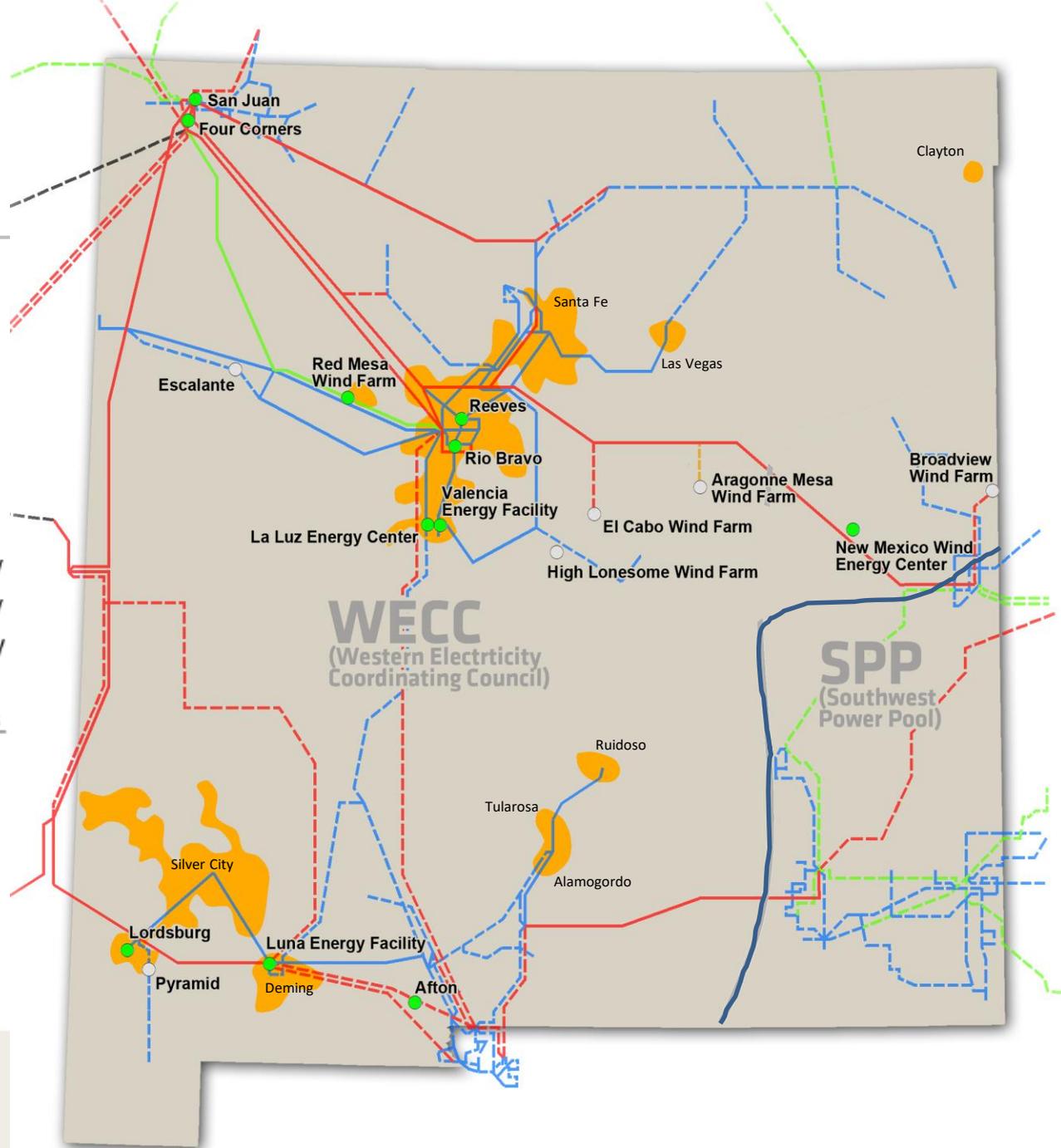
## Existing Transmission



## Existing Generation

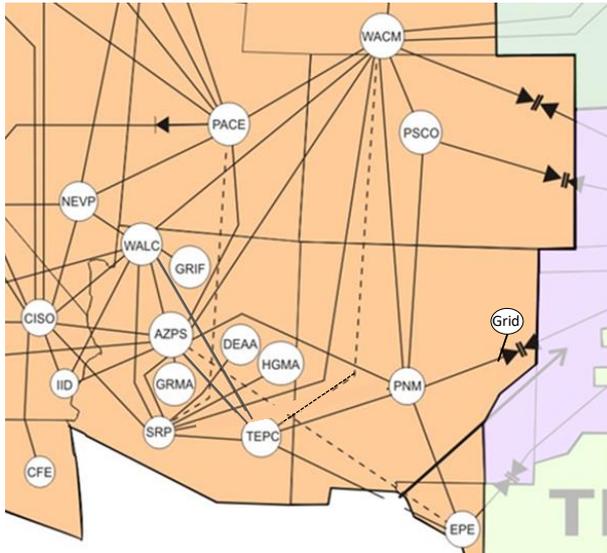


## PNM Service Areas



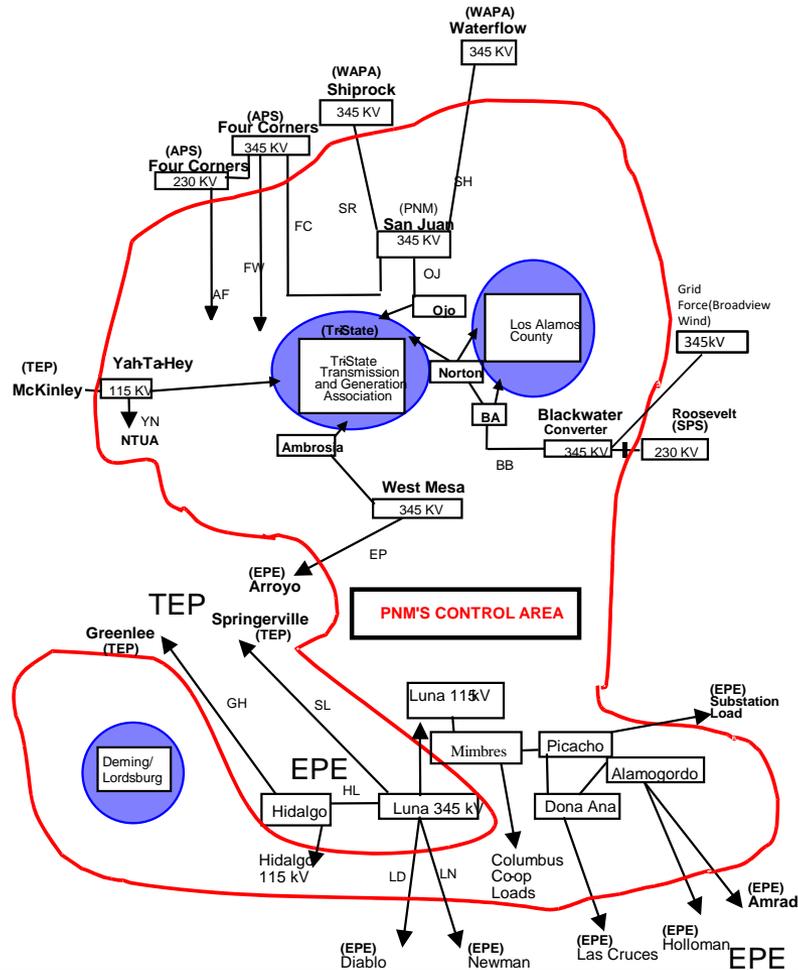
# PNM INTERCONNECTIONS

(for General Discussion Purposes-Some Approximations and Omissions of Ties May Exist)



## BA Interconnections

- Arizona Public Service (APS)
- Western Area Power-Loveland, CO (WACM)
- Tucson Electric Power (TEP)
- El Paso Electric (EPE)
- Public Service Co of Colorado (PSCO)
- Southwest Public Service (SPS)
- GridForce (Grid)



# MAJOR INITIATIVES

- Energy Transition Act
  - 100% Carbon Free by 2045
  - 80% Carbon Free by 2040
  - 50% Renewables by 2030
  - Closure of San Juan Generating Station
    - 450MW replacement power in same school district
    - \$20M San Juan County economic development
    - \$20M severance payments and retraining

**Let's take our next energy steps together.**

SHOW YOUR SUPPORT HERE

**PNM**

**ENERGY IS EVOLVING. SO IS PNM.**

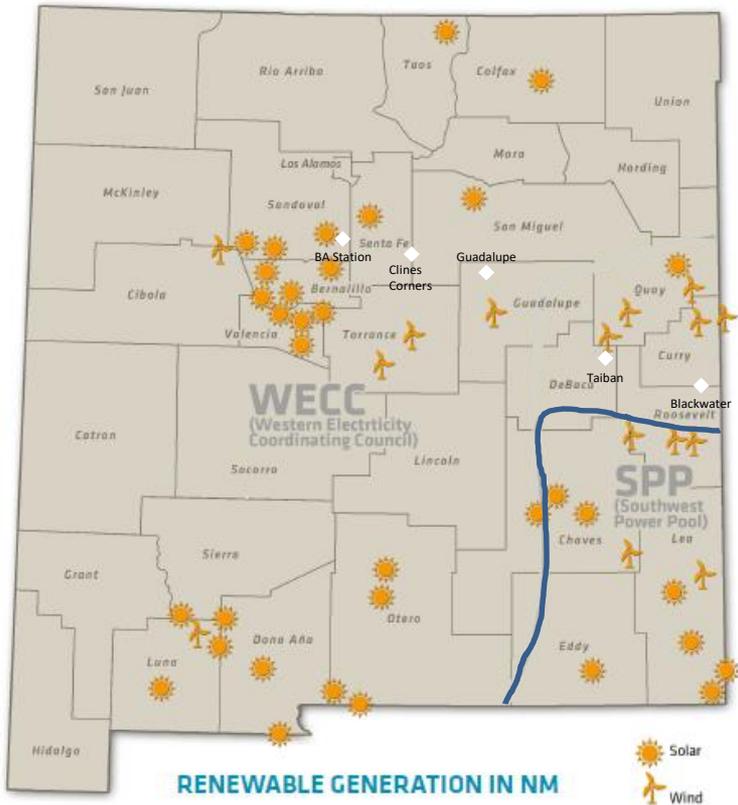
At PNM, we believe in improving our state, together with our customers. That's why we're committed to a stronger future for New Mexico with more renewable energy and fewer emissions. Our goal is to be over 70% emissions-free by 2032 while keeping your rates affordable.

How do we get there? For starters, we're proposing to close the San Juan Generating Station - our large coal-fired plant. We're replacing that energy with more renewables and emissions-free energy, including wind and solar. We're adding five new solar plants this year alone.

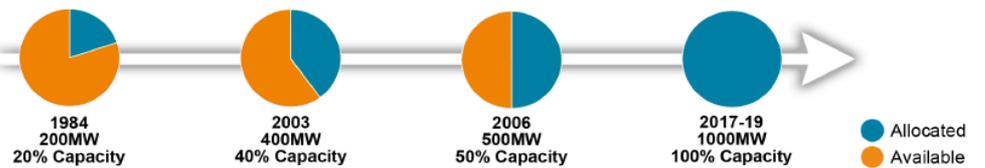
To learn more, visit [PNM.com/ForwardTogether](http://PNM.com/ForwardTogether)

**PNM** Together for New Mexico.

# RENEWABLES IN NEW MEXICO



The timeline below illustrates transmission commitments on the existing BB Line and how it has become completely allotted over time.



# MAJOR INITIATIVES

## PNM ENERGY IMBALANCE MARKET STUDIES

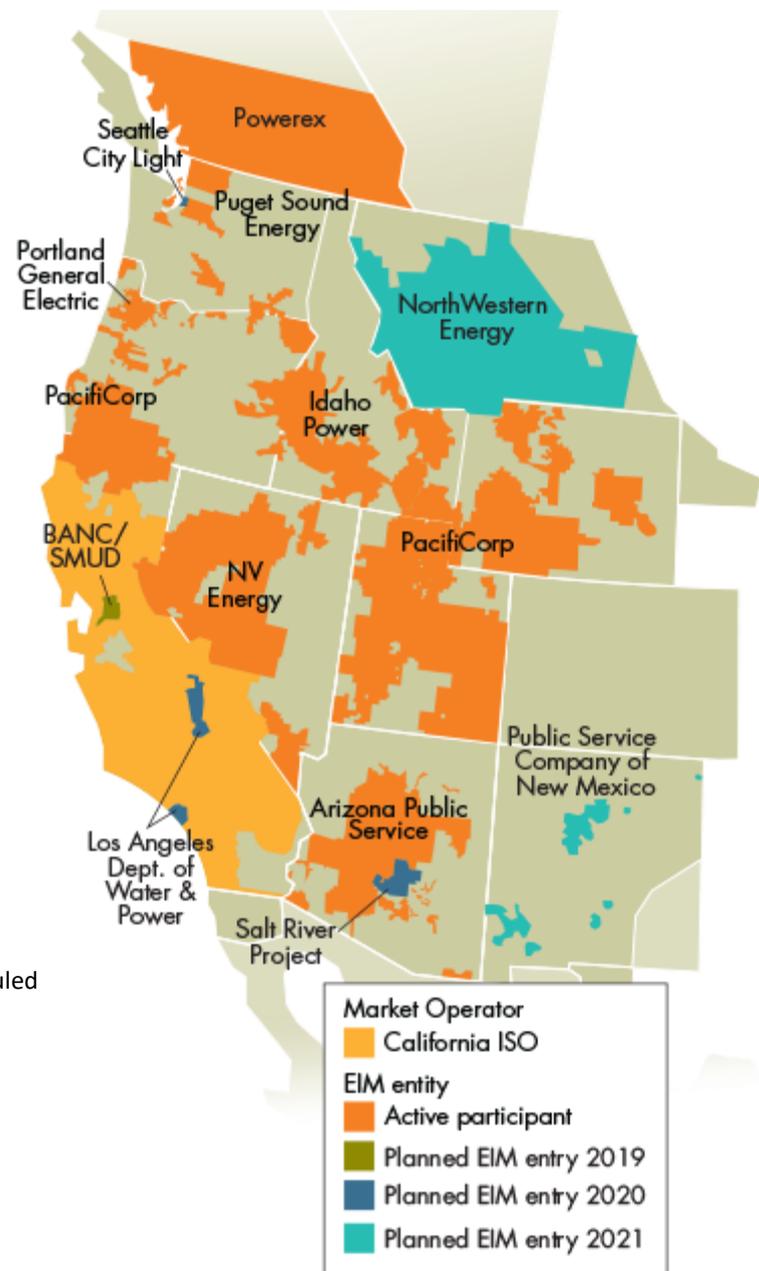
E3  
study focus

Operational  
Benefits

Utilicast  
study focus

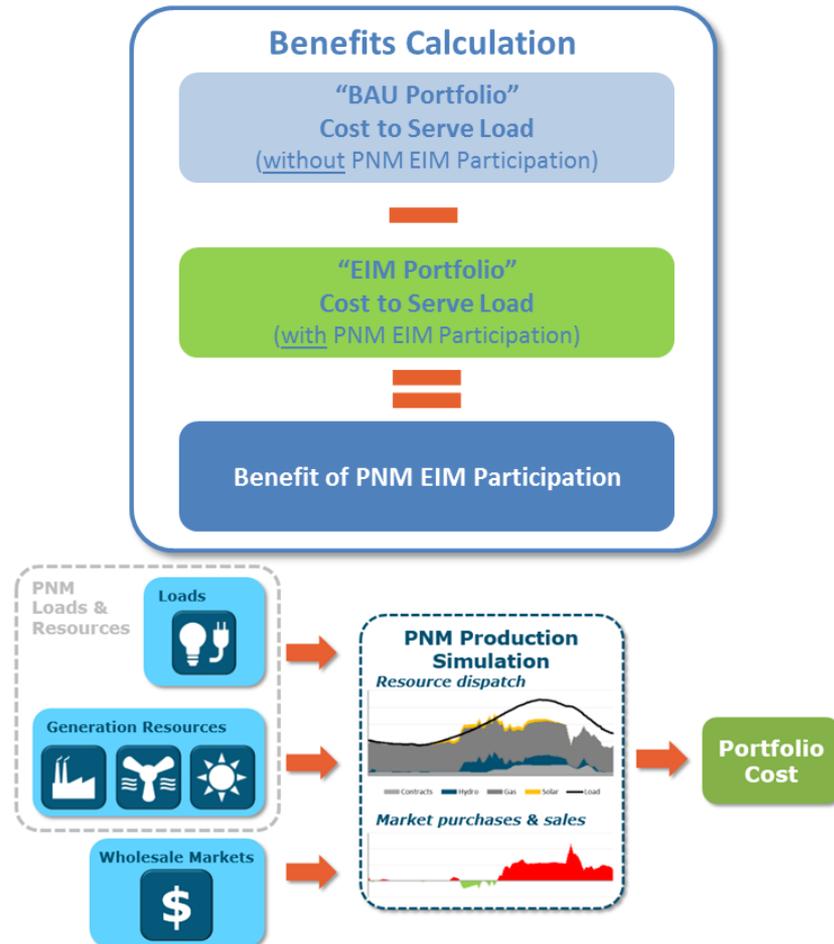
Implementation  
Costs

- BANC/SMUD is scheduled for activation in April of 2019
- Seattle City Light, LA Dept. Water and Power, and Salt River Project are scheduled for activation in April of 2020
- PNM and North Western Energy are scheduled for activation in April 2021



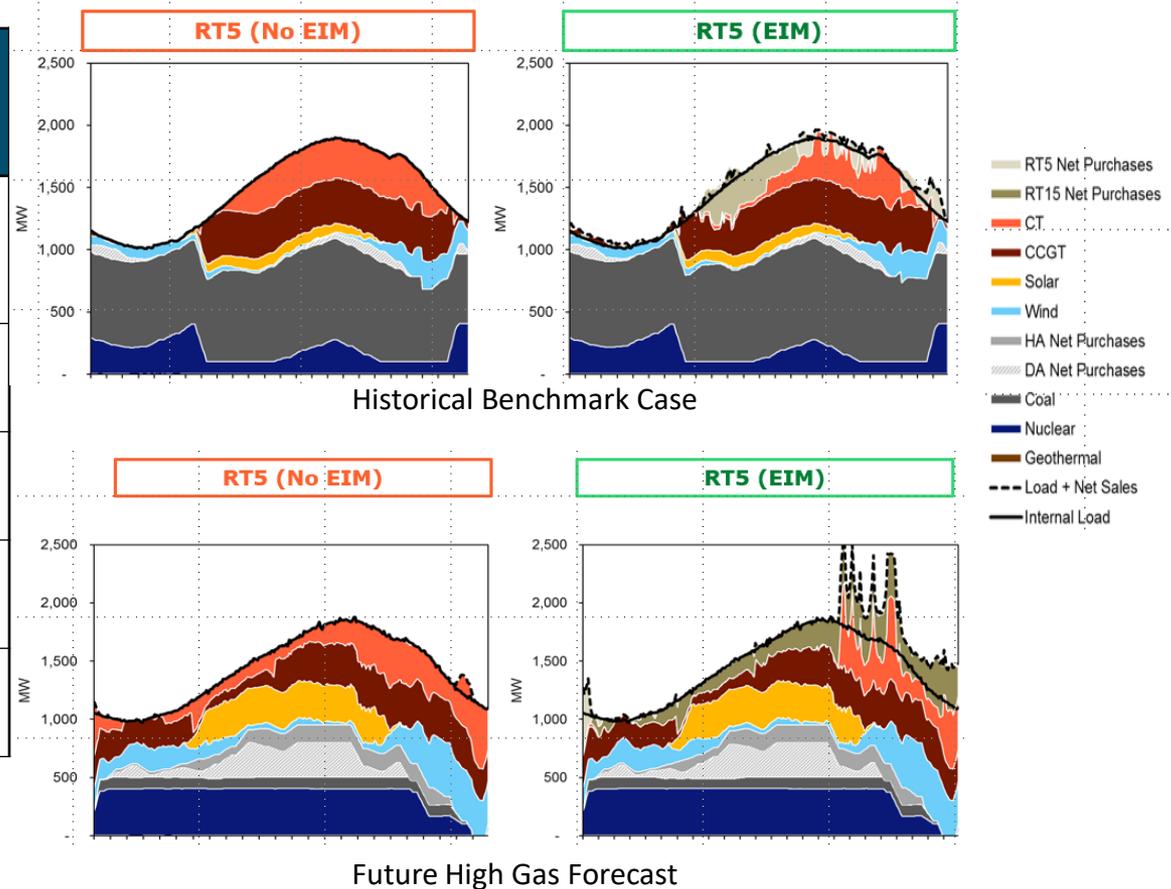
# BENEFITS STUDY APPROACH

- E3 developed a model to estimate the cost to serve load within PNM's territory
  - Includes variable cost of all owned or contracted resources + net market purchases
  - Assumed that PNM is a price taker when participating in CAISO markets
- EIM Portfolio provides incremental market access in the real-time in addition to PNM's existing portfolio of resources and trading
  - Benefit of PNM's EIM participation is the reduction in production cost relative to the benchmarked portfolio



# EIM BENEFITS IN THE RANGE OF \$17 TO \$21 MILLION/YEAR

Scenario(s)	Incremental EIM Benefit (\$MM)
Historical Benchmark (2016/2017)	\$10.6*
Future Base Portfolio (2024)	\$17.4
Future Base w Solar Curtailment	\$18.5
Future Alt. Gas Portfolio	\$19.1
Future High Gas Forecast	\$21.4



\*EIM value comes from more volatile RT prices, providing more sales revenues and reducing purchasing costs.

# PROJECT FORECASTED COST

## Capital:

- System Integrator
- EIM Software
  - Merchant
    - Bids and Generation Schedules
- Balancing Authority
  - Intertie base schedules,
  - 3<sup>rd</sup> party generator schedules
  - EMS Changes for Dispatch signals
- Settlements
  - Meter data warehouse
- Internal software interfaces
- Metering
  - Upgrades
  - Interval changes
- \$20.9M total capital

Capital: \$20.9M

## O&M:

### Implementation and one-time

- Change Management PM recommended
- Enterprise Training Development & execution
- Project Support from existing Staff
- O&M onetime relocation expenses

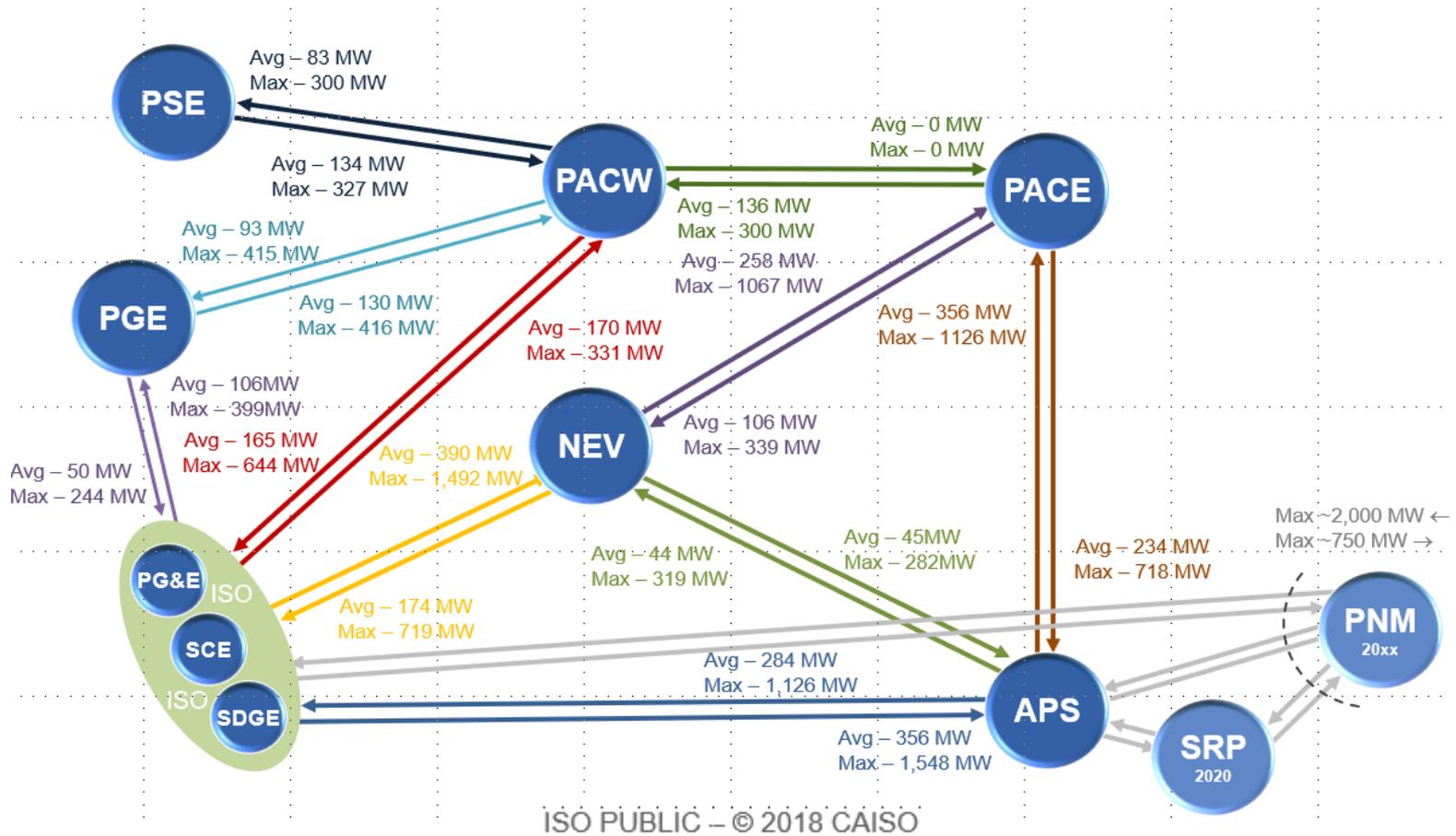
### On-Going

- Onboarding BTS/Operators/WPM Staff (19)
- Software maintenance

O&M: \$7.4M (one time)  
w/\$2.9-3.9M/yr (on-going)

Note: Projected costs between 2021 and 2025 as stated in PNM NMPRC filing

# TRANSFER CAPABILITY WOULD BE ENHANCED WITH PNM



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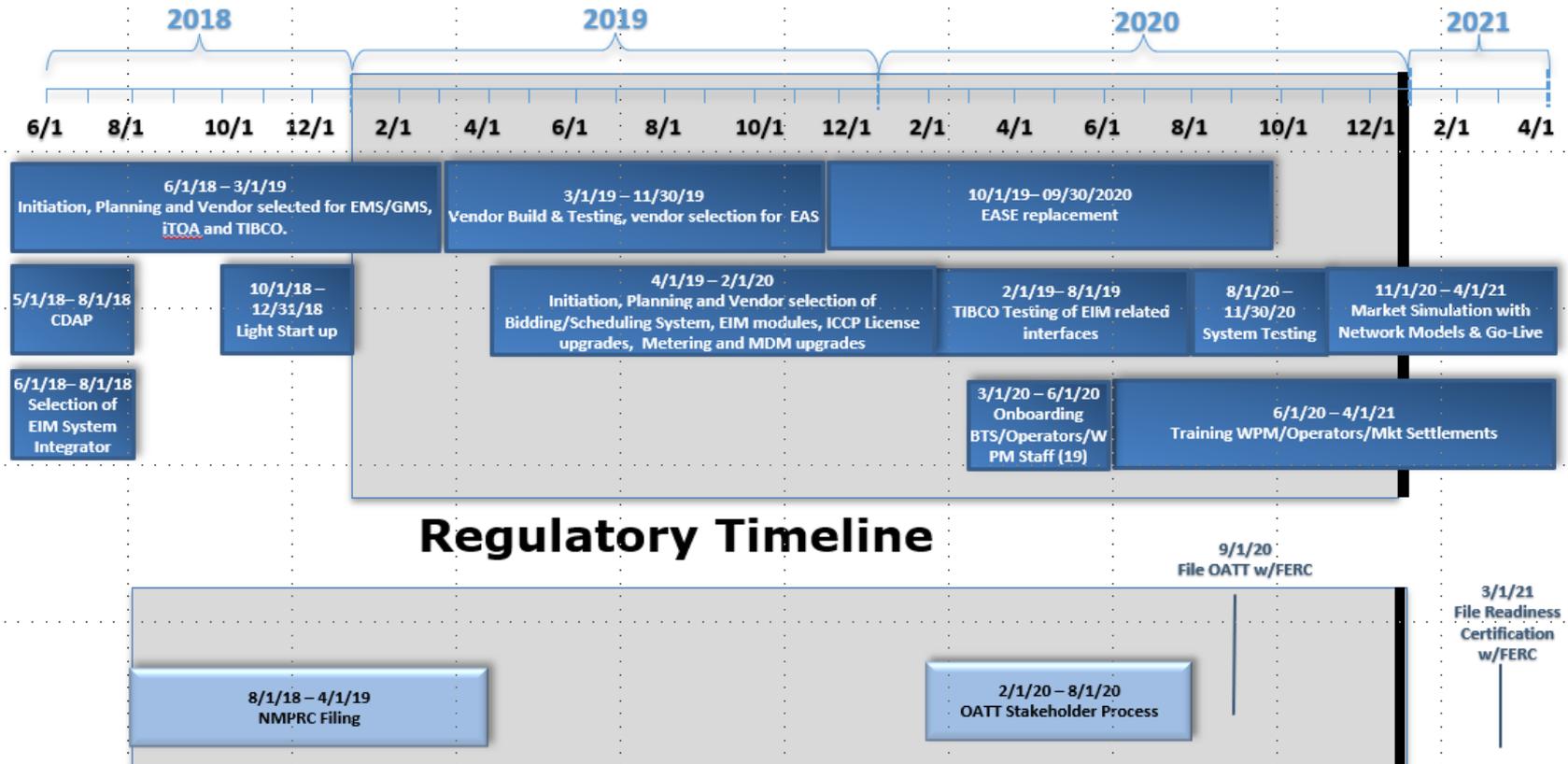
# REGULATORY UPDATE

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## Obtain NMPRC Order for Approval on Regulatory Asset

- On December 19, 2018, the Commission approved PNM's request for a regulatory asset with a debt-only carrying charge
- On February 6, 2019, the Commission granted intervenor Motion for Reconsideration subject to further procedural action at a later date
- March 27, 2019 Hearing Examiner to issue a Recommended Decision for the Commission's consideration on Approval of Regulatory Asset

# TIMELINE FOR IMPLEMENTATION



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## NEXT STEPS

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### Select Vendor(s)

- Schedule & Conduct Vendor Demos
- Make Final Selections
- Contract negotiations and execution

### Activate capital account(s)

Restart project planning and align vendor plans

Begin project implementation with Vendors on site by mid-June 2019



Talk to us.

