

PNM 2014-2033

Integrated Resource Plan

MARCH 11, 2014 PUBLIC ADVISORY WORKING GROUP MEETING



Talk to us.



MARCH 11, 2014

WIRELESS ACCESS FOR MAR 11TH ATTENDEES

Network: Orbit-GA

Username: guest

Password: Pate@Rue

AGENDA

MARCH 11TH

Today's agenda

- Welcome, Introductions, Safety and Ground Rules
- Solar Considerations
- Risk Analysis
- Discuss Schedule & Plan future meetings

SAFETY AND LOGISTICS

- Fire escape routes via stairways at east and west ends of hallway; please let us know if you require special handicap egress or special assistance
- We must obey any fire or emergency alarm; even drills/test alarms
- Restrooms – Women's room at west end; Men's room at east end
- Must sign in and sign out with security desk each time you enter the building
- Recycling – please help our efforts by dropping plastic or aluminum containers in the designated recycle bins

MEETING GROUND RULES

- Questions and comments are welcome; please be mindful of our time constraints
- Comments should be respectful of all participants
- Use name tents to indicate you have a comment or question
- Reminder: today's presentation is not PNM's plan or a financial forecast, it is an illustration of the IRP modeling process

DISCLOSURE REGARDING FORWARD LOOKING STATEMENTS

The information provided in this presentation contains scenario planning assumptions to assist in the Integrated Resource Plan public process and should not be considered statements of the company's actual plans. Any assumptions and projections contained in the presentation are subject to a variety of risks, uncertainties and other factors, most of which are beyond the company's control, and many of which could have a significant impact on the company's ultimate conclusions and plans. For further discussion of these and other important factors, please refer to reports filed with the Securities and Exchange Commission. The reports are available online at www.pnmresources.com.

The information in this presentation is based on the best available information at the time of preparation. The company undertakes no obligation to update any forward-looking statement or statements to reflect events or circumstances that occur after the date on which such statement is made or to reflect the occurrence of unanticipated events, except to the extent the events or circumstances constitute material changes in the Integrated Resource Plan that are required to be reported to the New Mexico Public Regulation Commission (NMPRC) pursuant to Rule 17.7.4 New Mexico Administrative Code (NMAC).

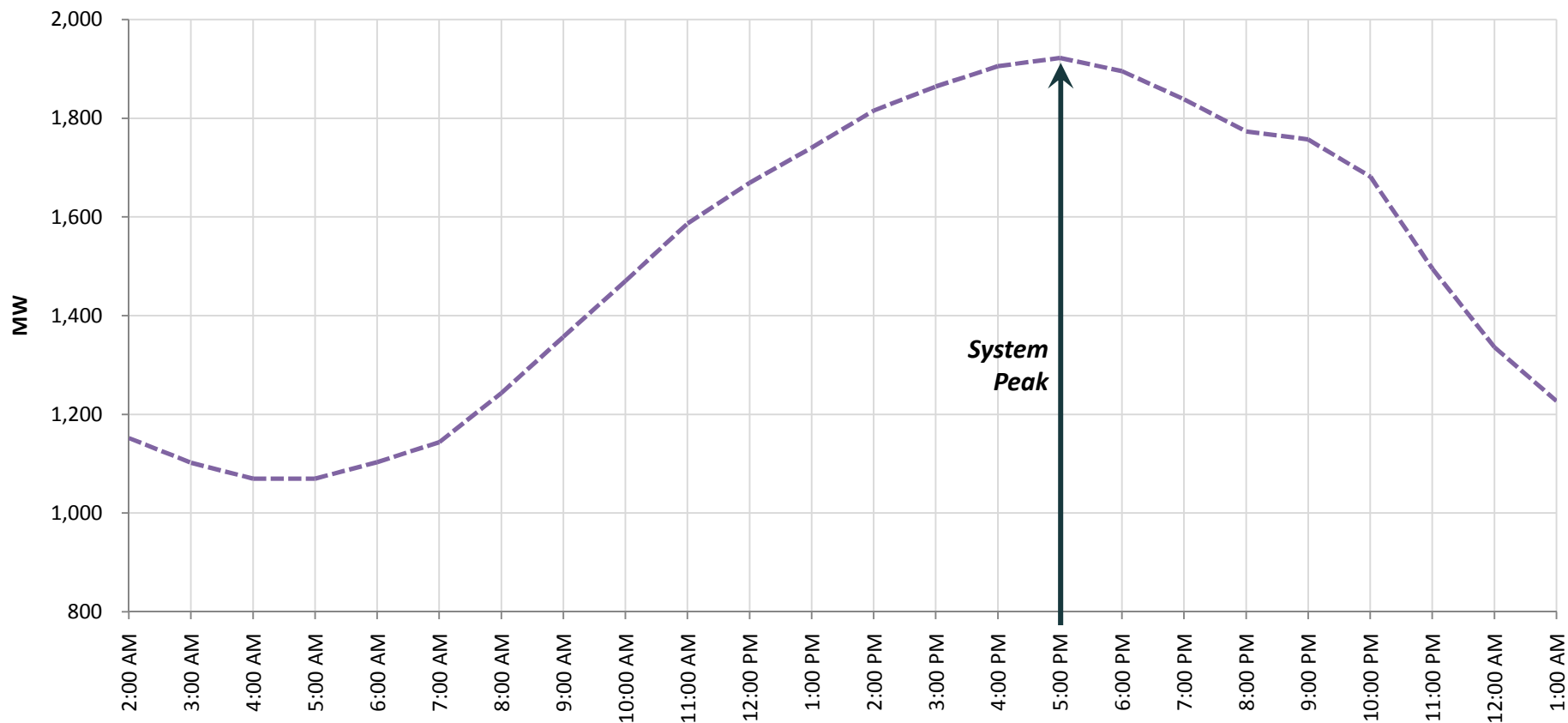
SOLAR CONSIDERATIONS

IMPACTS OF SOLAR PHOTOVOLTAIC (“PV”) RESOURCES

- Illustrate how Solar PV impacts PNM’s demand
- Solar PV capacity contribution
- Solar PV energy contribution

SOLAR CONSIDERATIONS

PNM SOLAR CAPACITY VALUE - TYPICAL PEAK DAY DEMAND

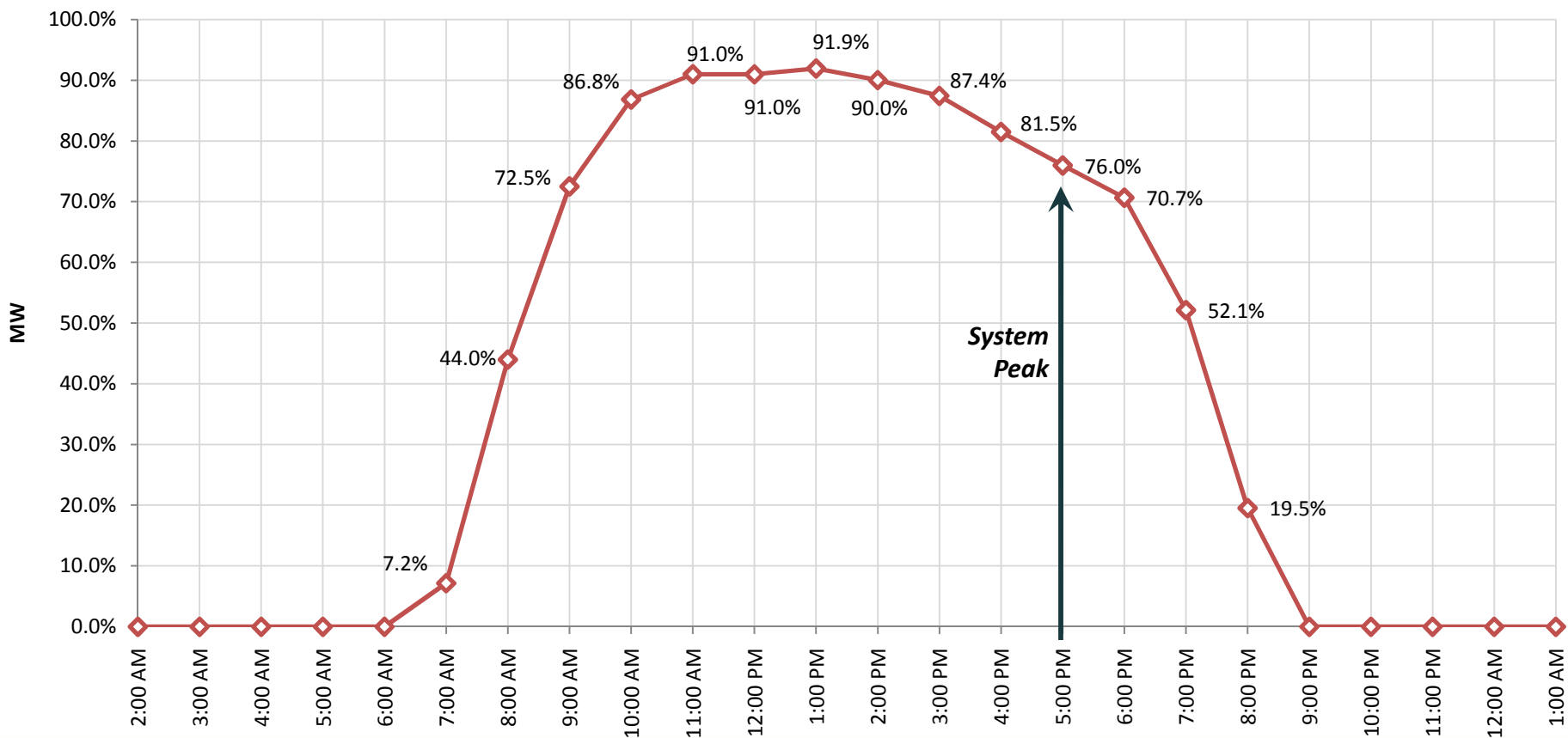


Talk to us.



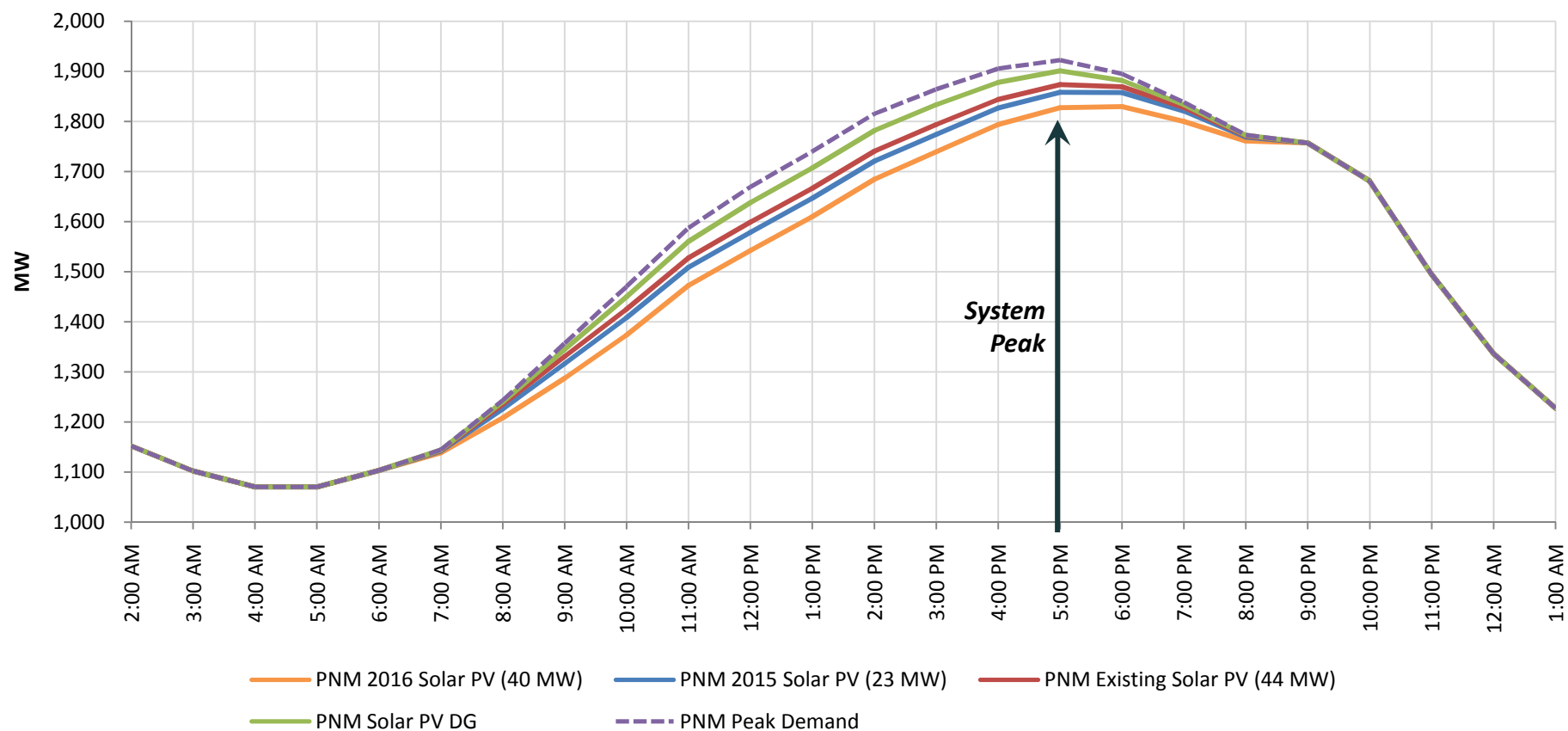
SOLAR CONSIDERATIONS

PNM SOLAR CAPACITY VALUE - JULY TYPICAL DAY PEAK CONTRIBUTION



SOLAR CONSIDERATIONS

PNM SOLAR CAPACITY VALUE - PNM TYPICAL PEAK DAY NET DEMAND



SOLAR CONSIDERATIONS

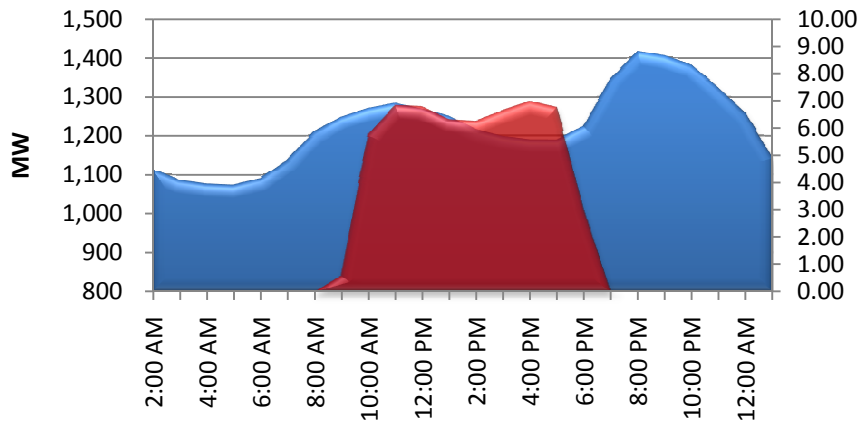
PNM SOLAR CAPACITY VALUE

- Solar PV production provides capacity value during PNM system peak
- Solar PV capacity value declines as more solar facilities are added to the system
- Capacity curves are provided by solar developer(s) and validated against historical information and industry standards

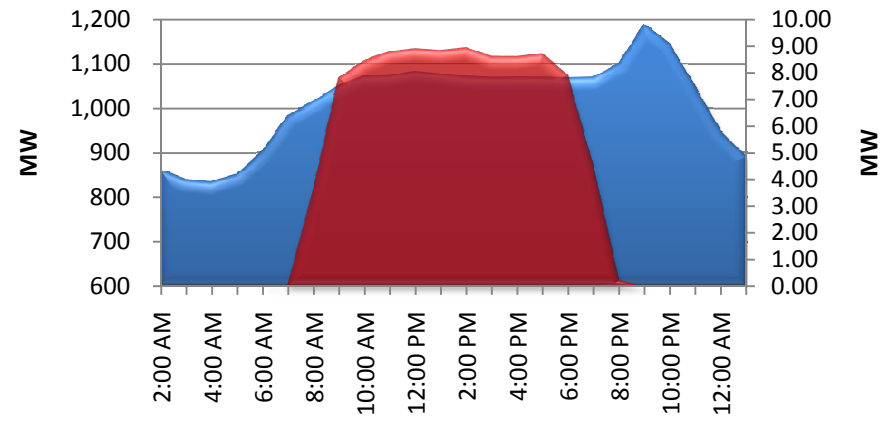
SOLAR CONSIDERATIONS

PNM SOLAR ENERGY CONTRIBUTION – TYPICAL DAY VS. 10 MW SOLAR PV

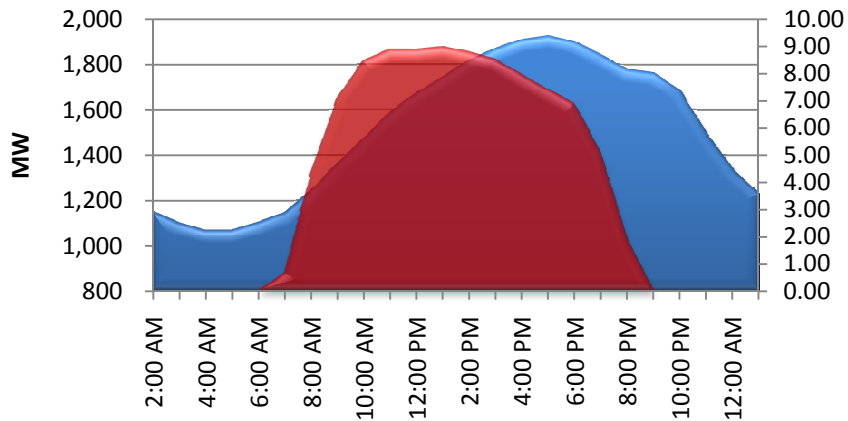
January



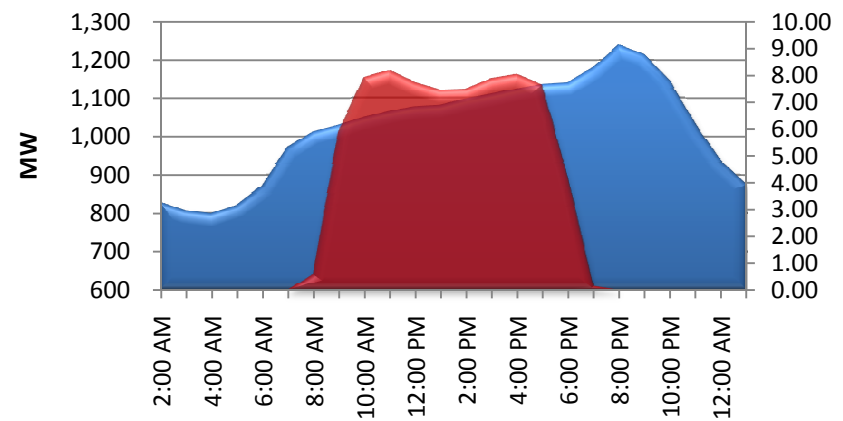
April



July



October



SOLAR CONSIDERATIONS

PNM SOLAR ENERGY VALUE

- Although solar PV provides energy value, a significant customer energy requirement remains
- Solar PV energy provides hedge against future carbon prices and fossil fuel price variations
- Energy value decreases with solar panel degradation

RISK ANALYSIS

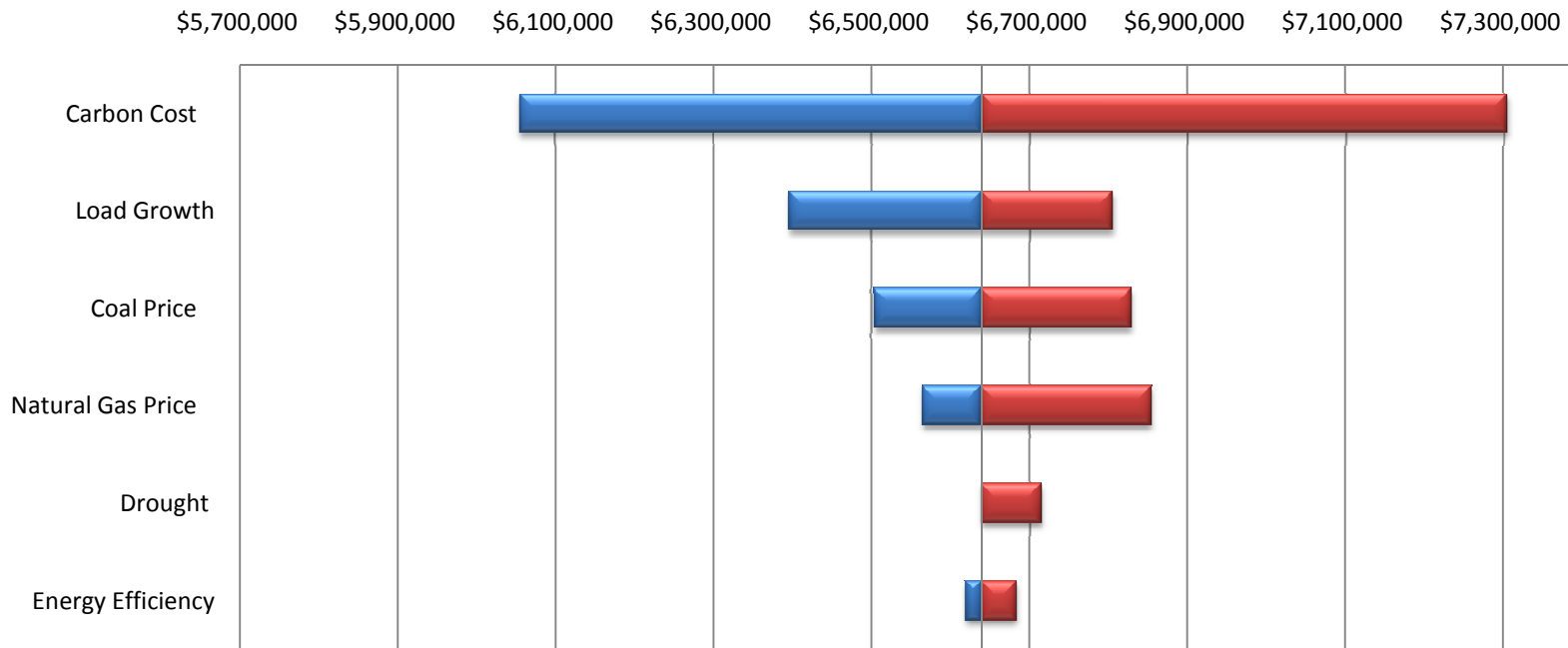
OVERVIEW – MODELING KEY COST FACTOR VARIABILITY

PNM's modeling shows that the input factors that both A) display significant variation in their magnitude and B) have a major impact on total ratepayer cost are:

1. Natural gas prices
2. Load growth
3. Potential greenhouse gas emission costs
4. Wholesale electricity market prices

PORTFOLIO COST – SENSITIVITY TO KEY FACTORS

Revised SIP w/PVNGS #3; Portfolio Cost Factors



Case Descriptions:

Carbon Cost
 Load Growth
 Coal Price
 Natural Gas Price
 Drought
 Energy Efficiency

Reference Case Values

\$10.00 -- 2020 first year
 0.7% -- annual peak demand growth rate
 \$2.73/ton -- change from SJGS base coal cost
 \$3.88 -- \$/mmbtu, escalate 2.5%
 Budget -- No scarcity
 Base -- Program effectiveness scenarios

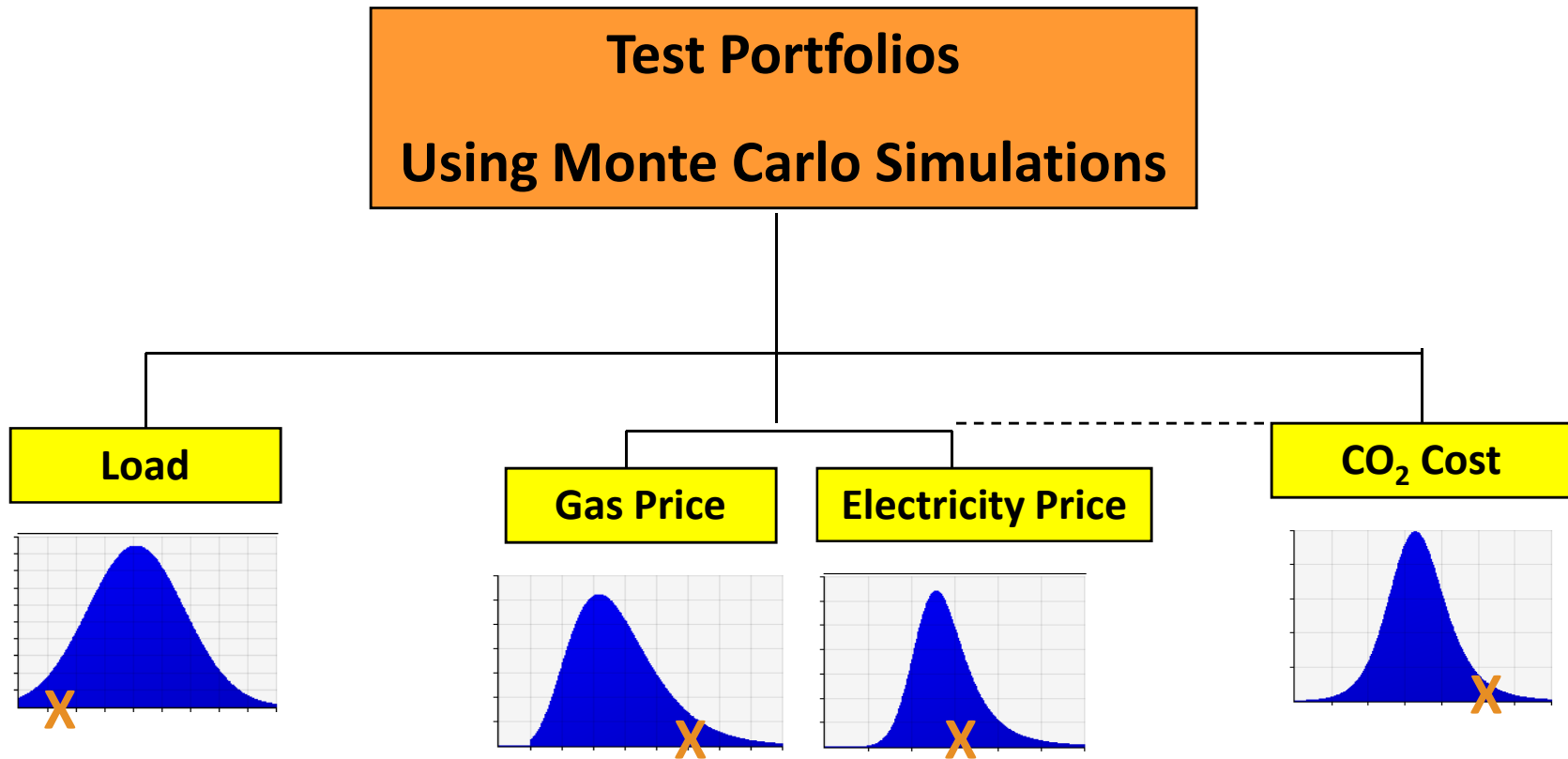
Low Cost Sensitivity

2027
 0.5%
 -10.0%
 \$3.75
 Reference
 High Impact

High Cost Sensitivity

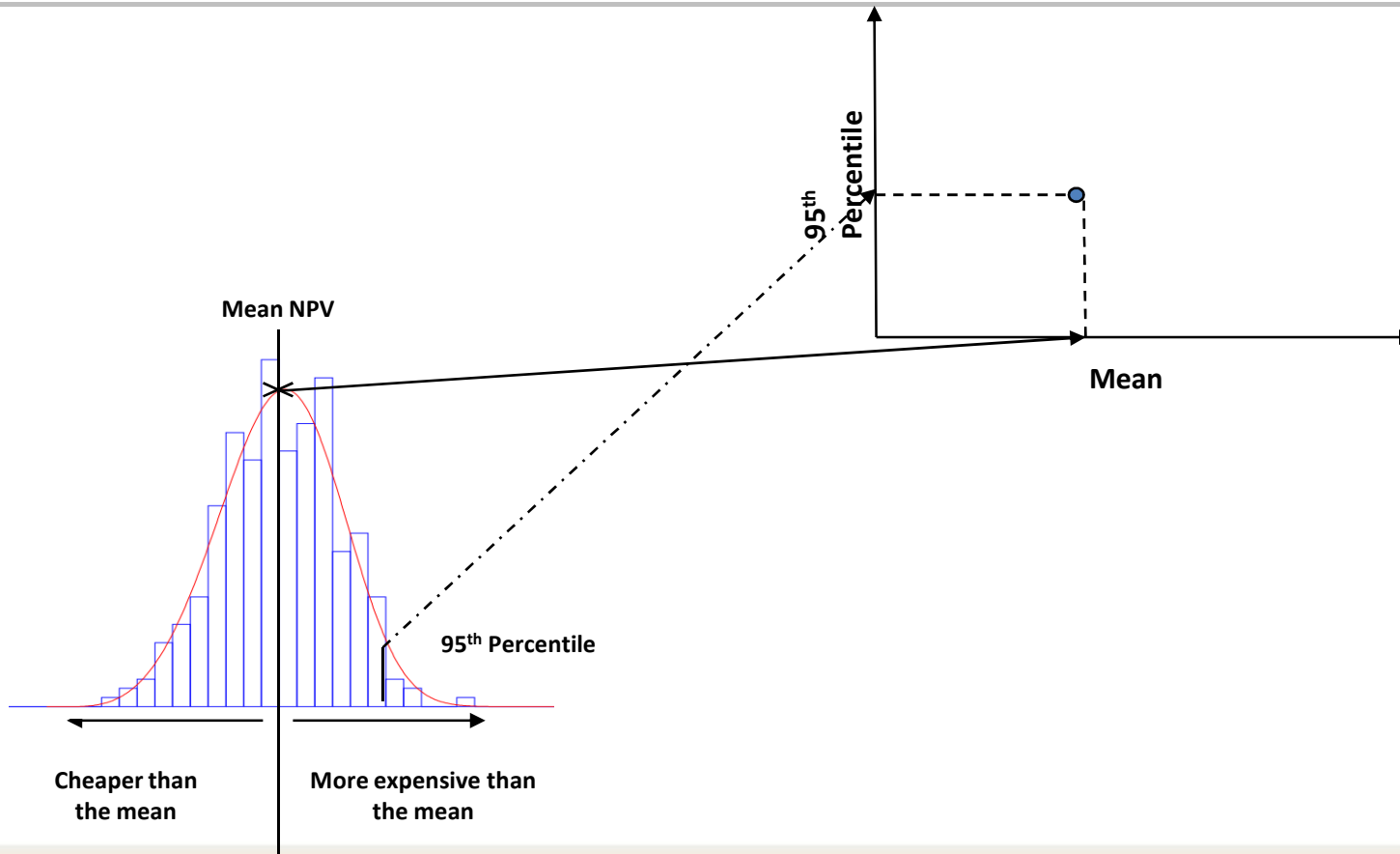
2018
 1.1%
 20.0%
 \$4.15
 Drought
 Low Impact

ANALYZE VARIATION IN MULTIPLE COST FACTORS



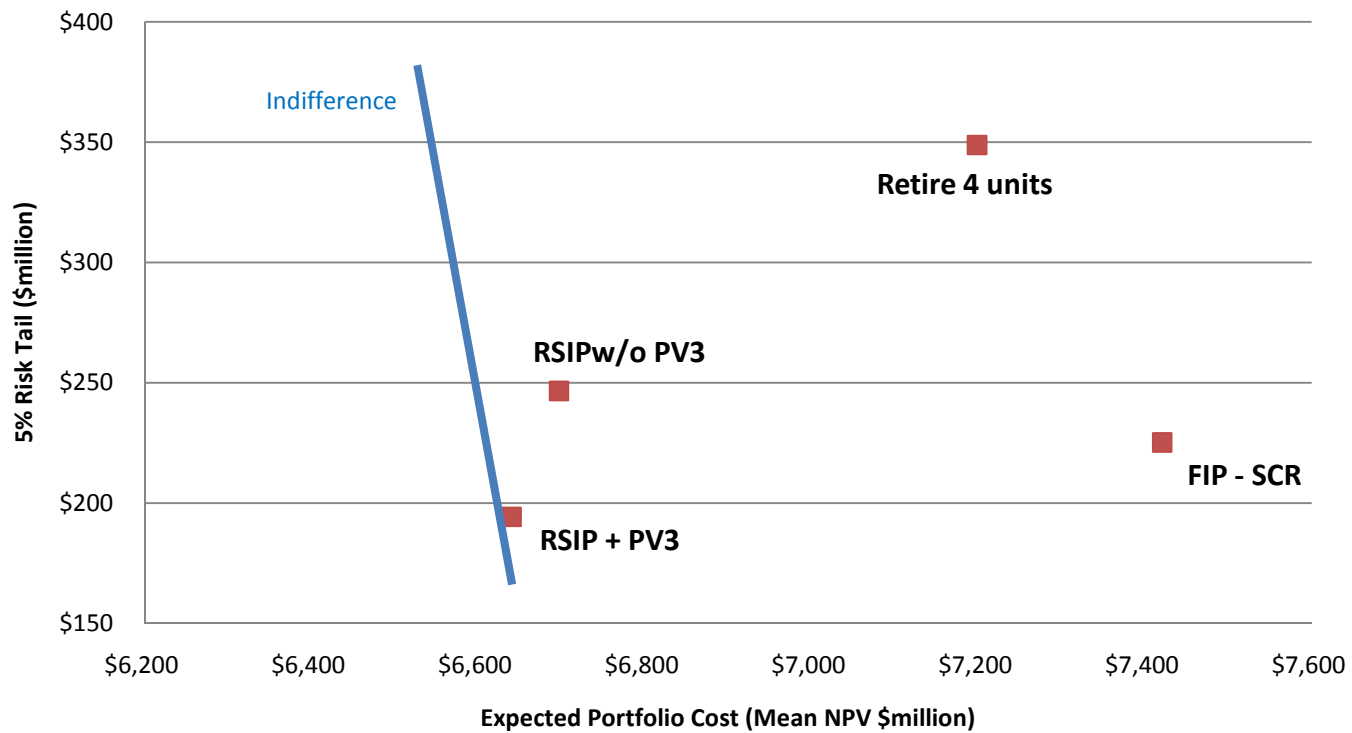
PORTFOLIO RISK AND COST RESULTS

PLOTTING THE SIMULATION OUTCOMES FOR A PORTFOLIO



PORTFOLIO COST & RISK COMPARISONS

Case #13-00390 UT: Risk - Cost Results (900 Draws: CO₂, P_E, P_G, Load)

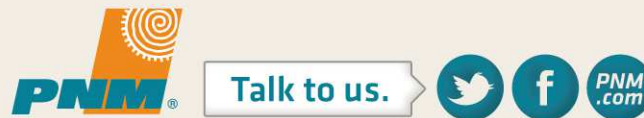


NEXT MEETING AGENDA

CONTINUE PORTFOLIO ANALYSIS

- Follow up on comments from today's meeting
- Discussion and review of preliminary Integrated Resource Plan Draft Report
- Trends and conclusions
- Discuss report preparation
- Meeting schedule to be determined

Thank you



MAKE SURE WE HAVE UP TO DATE CONTACT INFORMATION FOR YOU

www.pnm.com/irp for documents

irp@pnm.com for e-mails

Register your email on sign-in sheets for alerts of upcoming meetings and notices that we have posted new information to the website.

Meetings Schedule:

Tuesday, Sept. 17, 2013, 8 a.m.- noon

Friday, Sept. 20, 2013, 8 a.m.- noon

Thursday, Sept. 26, 2013, 8 a.m.- noon

Friday, Oct. 4, 2013, 8 a.m.- noon

Friday, Nov. 15, 2013, 8 a.m.- noon



Talk to us.



IRP GOALS

BALANCE

