



# INVESTING IN A CLEAN FUTURE

Austin Energy's Resource, Generation and  
Climate Protection Plan to 2020 Update

June 4, 2014

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# Austin Energy Update to Austin Generation Resource Planning Task Force

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June 4, 2014

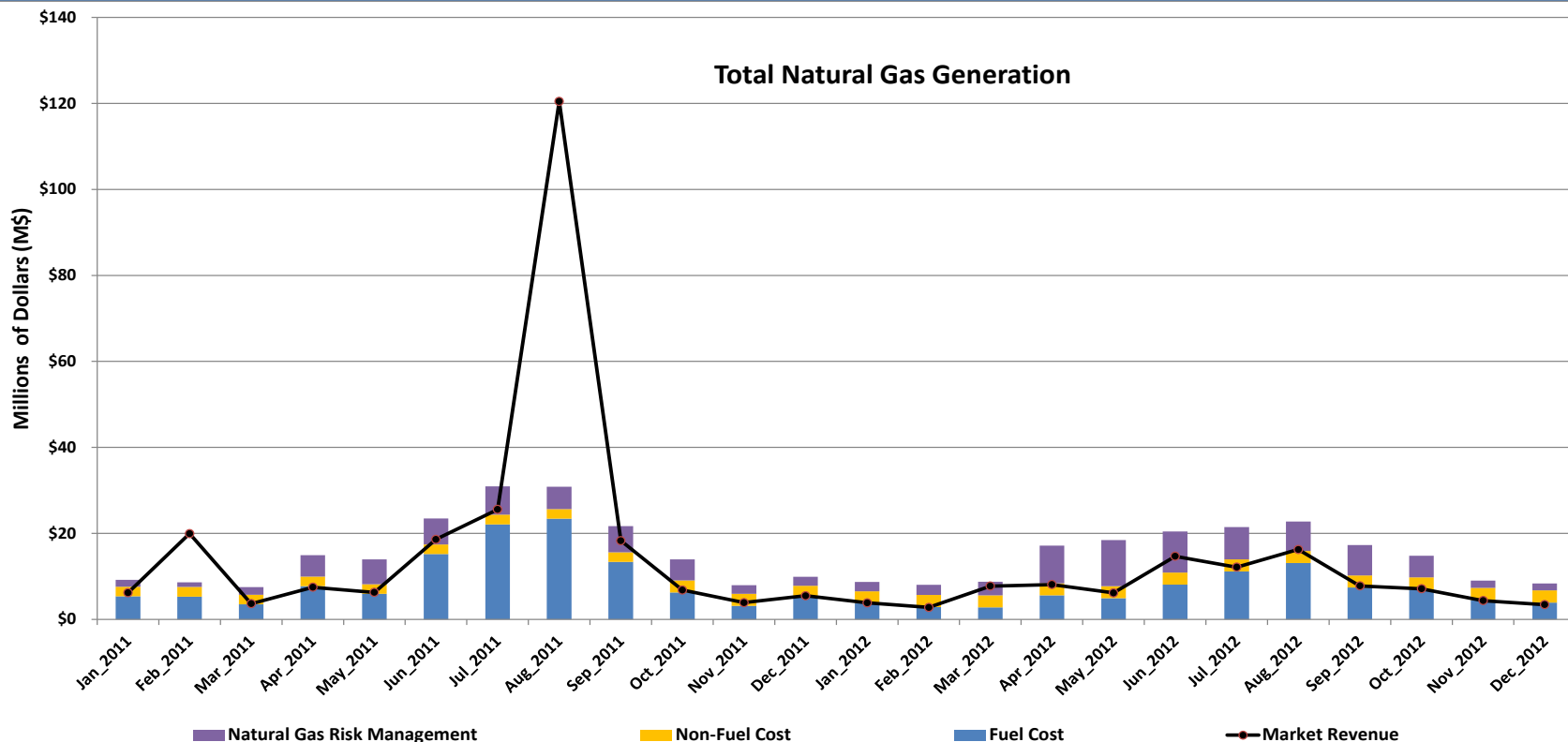


# Agenda

- Austin Energy All in historical production cost/revenue for Gas with Natural Gas Risk Management
- Back cast of recent Solar contract
- Renewable cost assumptions for Resource Planning



# Austin Energy All in Production Cost/Revenue for Gas units



## Summary

	Generation MWh	Fuel Cost (\$Million)	Non-Fuel Cost (\$Million)	Total Cost (\$Million)	Total Cost (\$/MWH)	Total Revenue (\$Million)	Total Revenue (\$/MWH)	Natural Gas Risk Management Cost (\$Million)	Net Revenue/Cost without Risk Management (\$Million)	Net Revenue/Cost without Risk Management (\$/MWH)	Net Revenue/Cost with Risk Management (\$Million)	Net Revenue/Cost with Risk Management (\$/MWH)
CY 2011	1,760,176	\$116.3	\$28.6	\$144.8	\$82.28	\$242.7	\$137.87	\$48.12	\$97.8	\$55.59	\$49.7	\$28.26
CY 2012	1,388,101	\$75.0	\$33.7	\$108.7	\$78.32	\$94.3	\$67.95	\$66.61	(\$14.4)	(\$10.37)	(\$81.0)	(\$58.36)

Note: Risk Management cost is a cost associated with load and has nothing to do with Generation



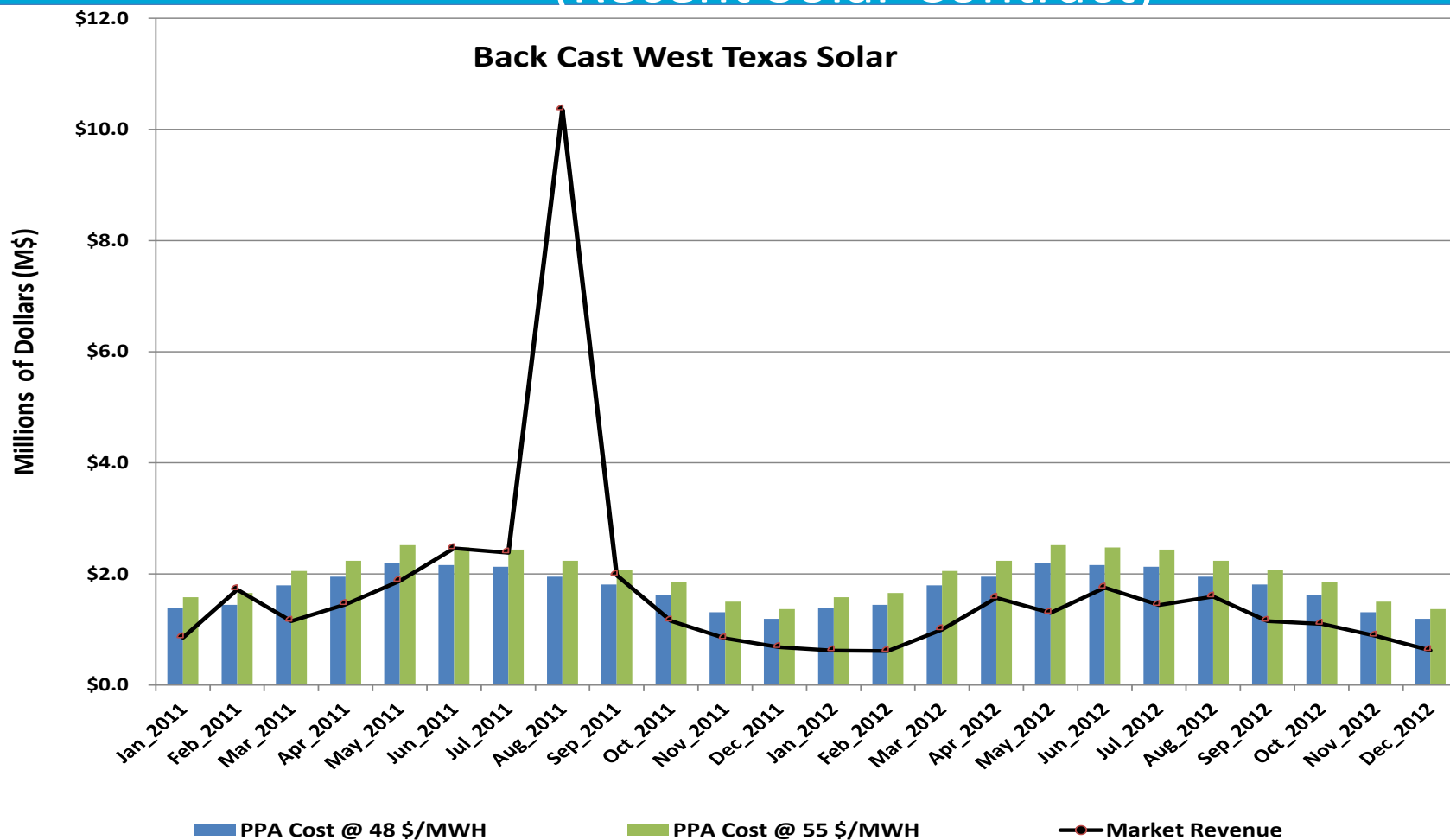


# Back Cast Analysis Assumptions

- Based upon hourly profile provided by the proposer
  - Same for both 2011 & 2012
- Revenues are based on AE Load Zone LMP
- Does not include any congestion cost, contract sharing cost etc., in the analysis



# Back cast of West Texas Solar (Recent Solar Contract)

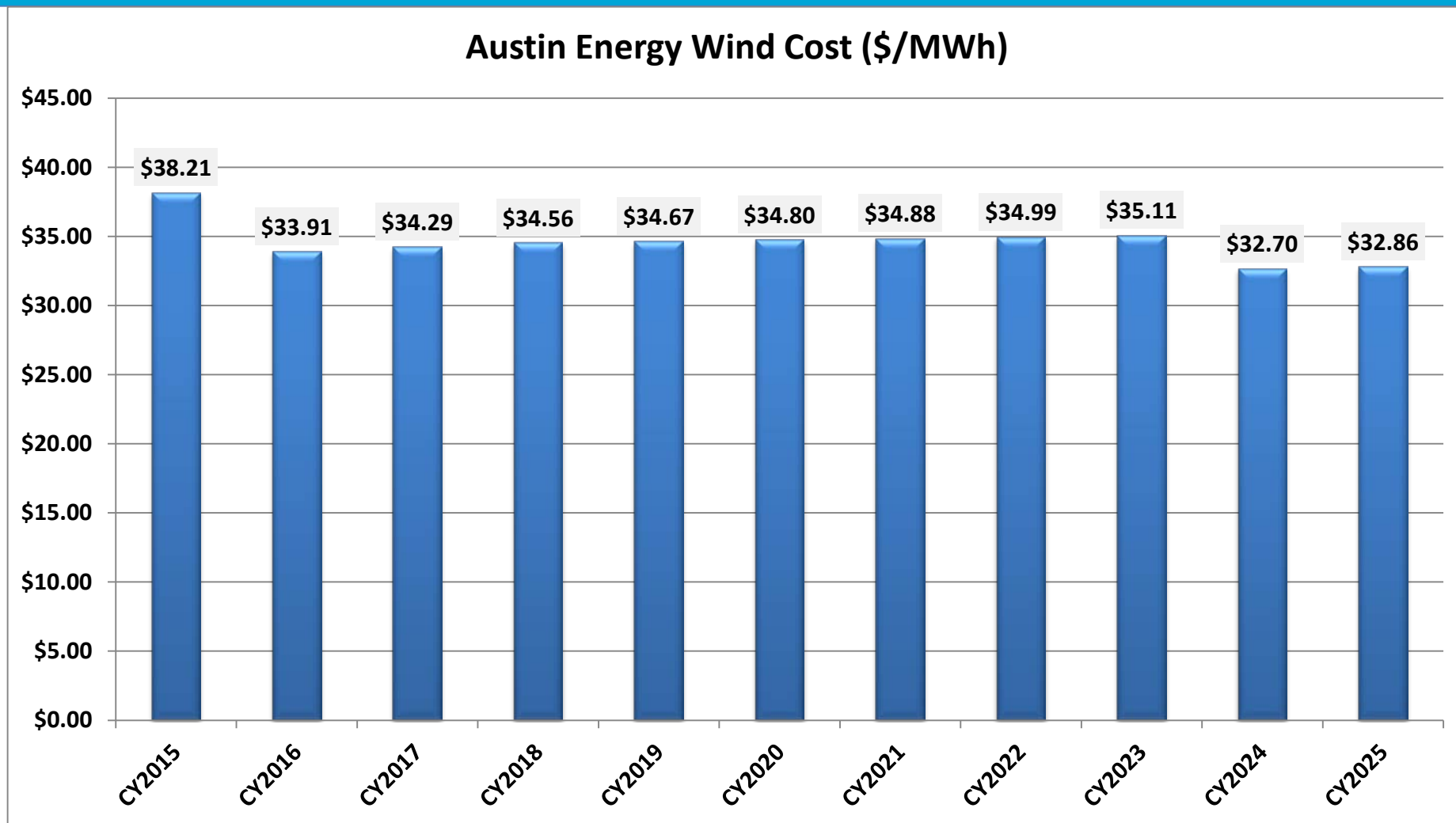


	Generation MWh	PPA Cost @ 48 \$/MWH (\$Million)	PPA Cost @ 55 \$/MWH (\$Million)	Total Revenue (\$Million)	Net Revenue @ 48/MWH (\$ Million)	Net Revenue @ 55/MWH (\$ Million)	Net Revenue/Cost @ 48/MWH (\$ /MWH)	Net Revenue/Cost @ 55/MWH (\$ /MWH)
<b>CY2011</b>	436,235	\$20.9	\$24.0	\$26.9	\$6.0	\$2.9	\$13.66	\$6.66
<b>CY 2012</b>	436,235	\$20.9	\$24.0	\$13.6	(\$7.3)	(\$10.4)	(\$16.73)	(\$23.73)





# Projected Production Cost for Wind

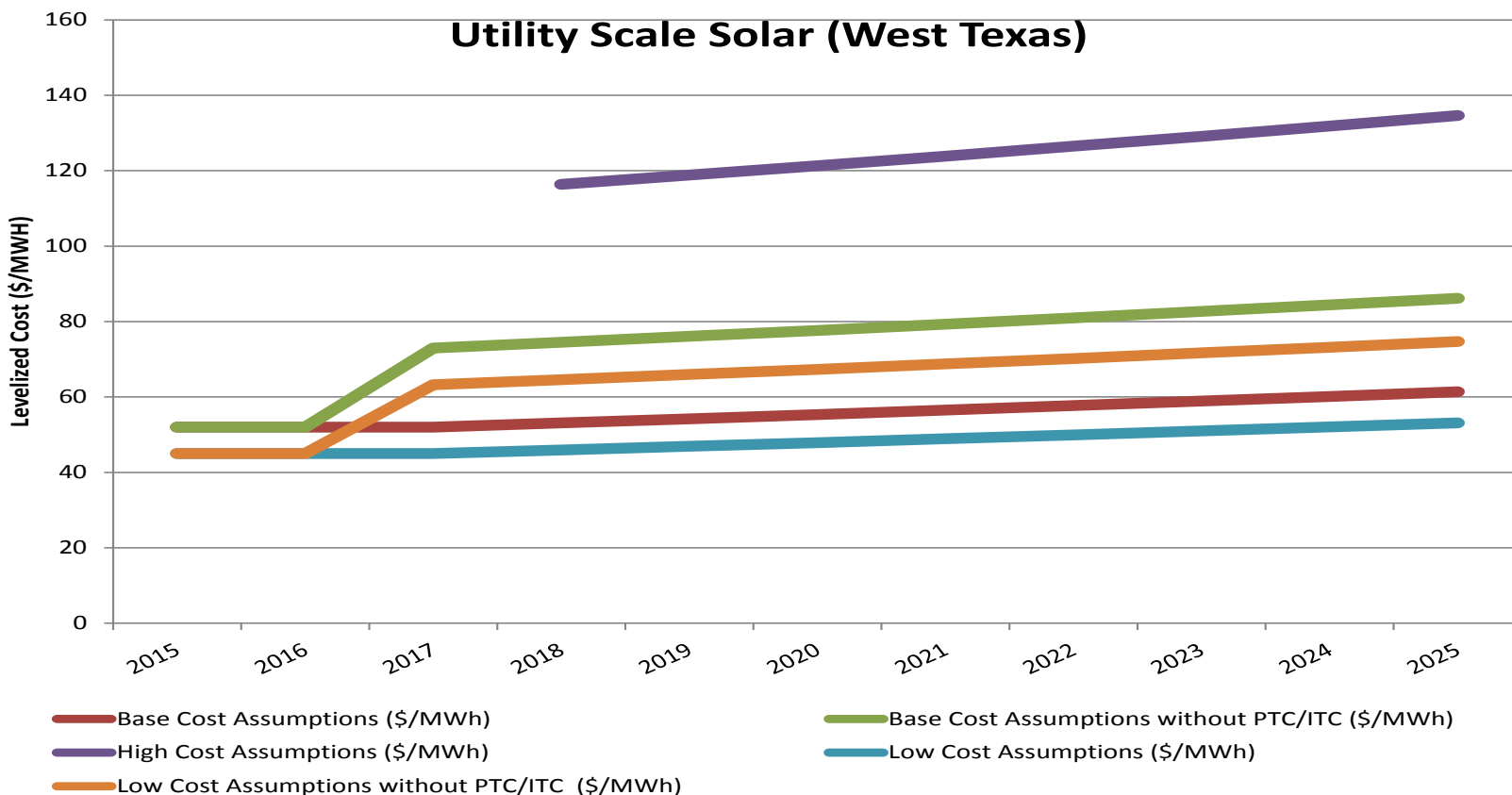


- Other costs such as Congestion cost & contract sharing cost are not included here
- Includes all existing wind resources that are currently in commercial operation or become available in the planning period





# Utility Scale Solar Cost Assumptions for Resource Planning



## Note:

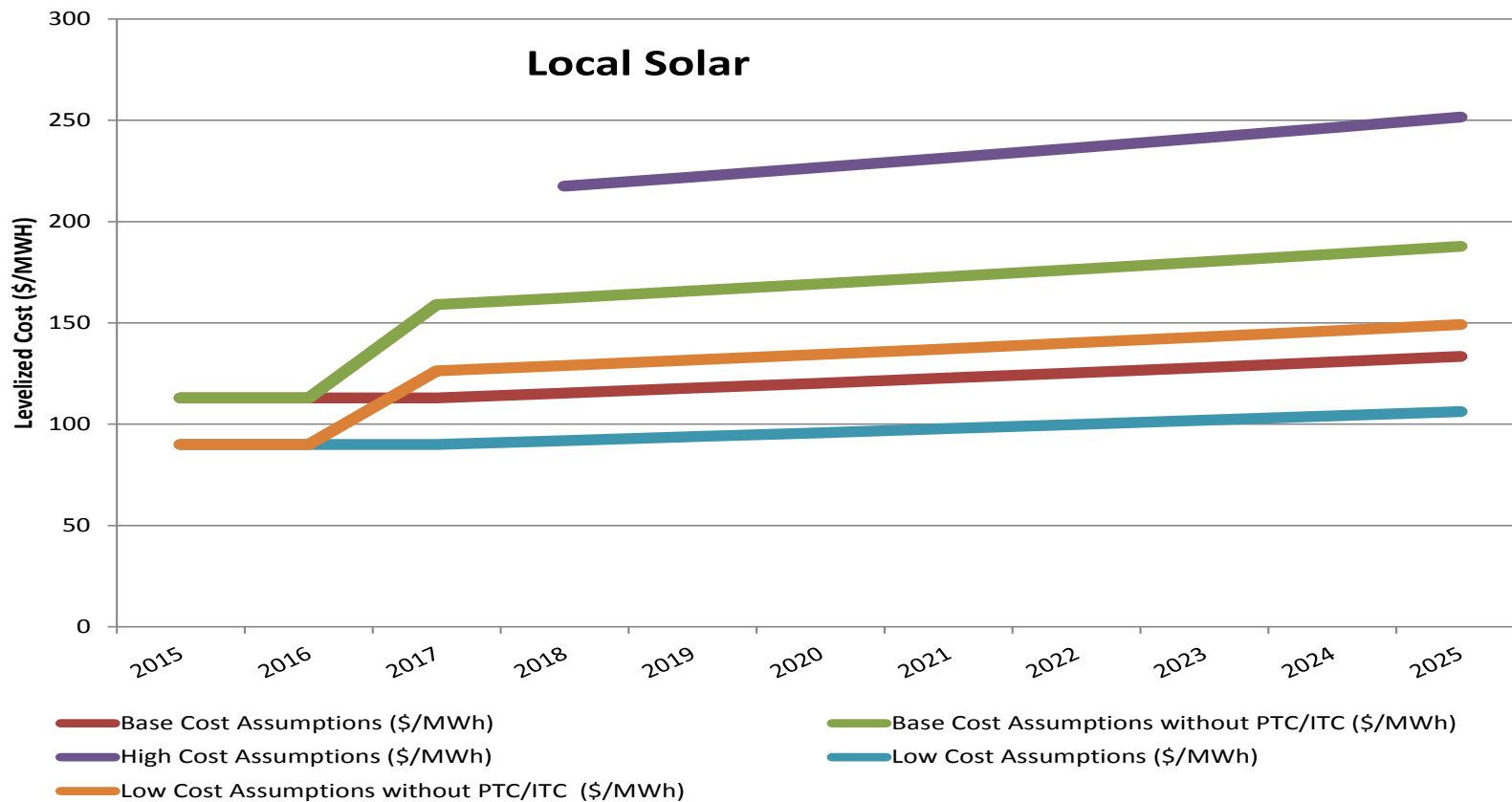
1. 2015 cost range with PTC/ITC generally based on recent Austin Energy Bids
2. Solar PV assumed flat through 2017 (i.e. cost decreases at about general inflation rate of 2.1%) then increases at 2.1% general inflation through 2025
3. Wind cost assumptions escalated at general inflation rate of 2.1%
4. High cost assumes higher end of AE bids and the 30% Investment Tax Credit (ITC) and Production Tax Credit (PTC) Expire
5. Low Cost assumption may be lower than actual bids when high market price/high gas price conditions exist.







# Local Solar Cost Assumptions for Resource Planning



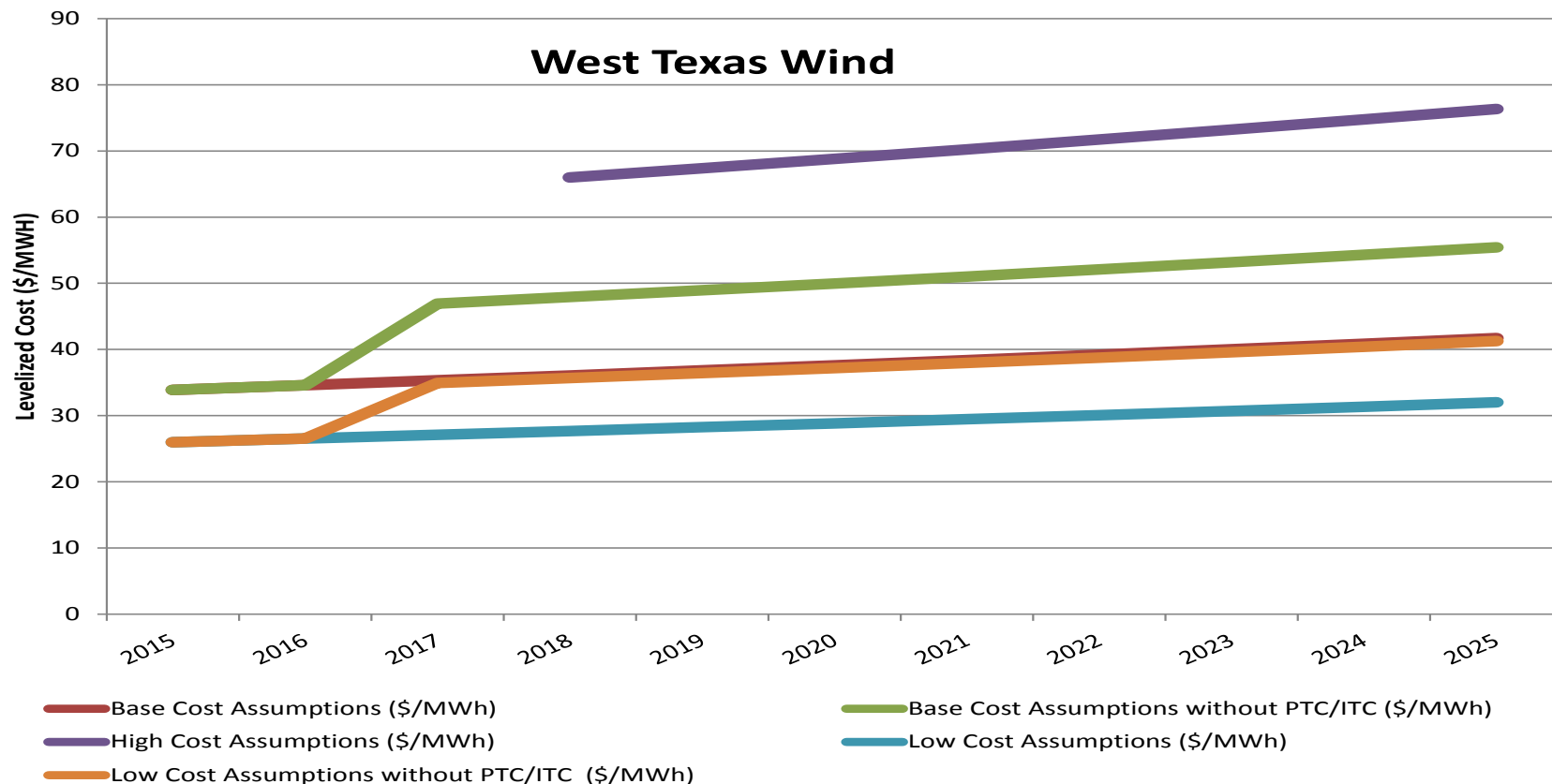
## Note:

1. 2015 cost range with PTC/ITC generally based on recent Austin Energy Bids
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3. Wind cost assumptions escalated at general inflation rate of 2.1%
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# West Texas Wind Cost Assumptions for Resource Planning



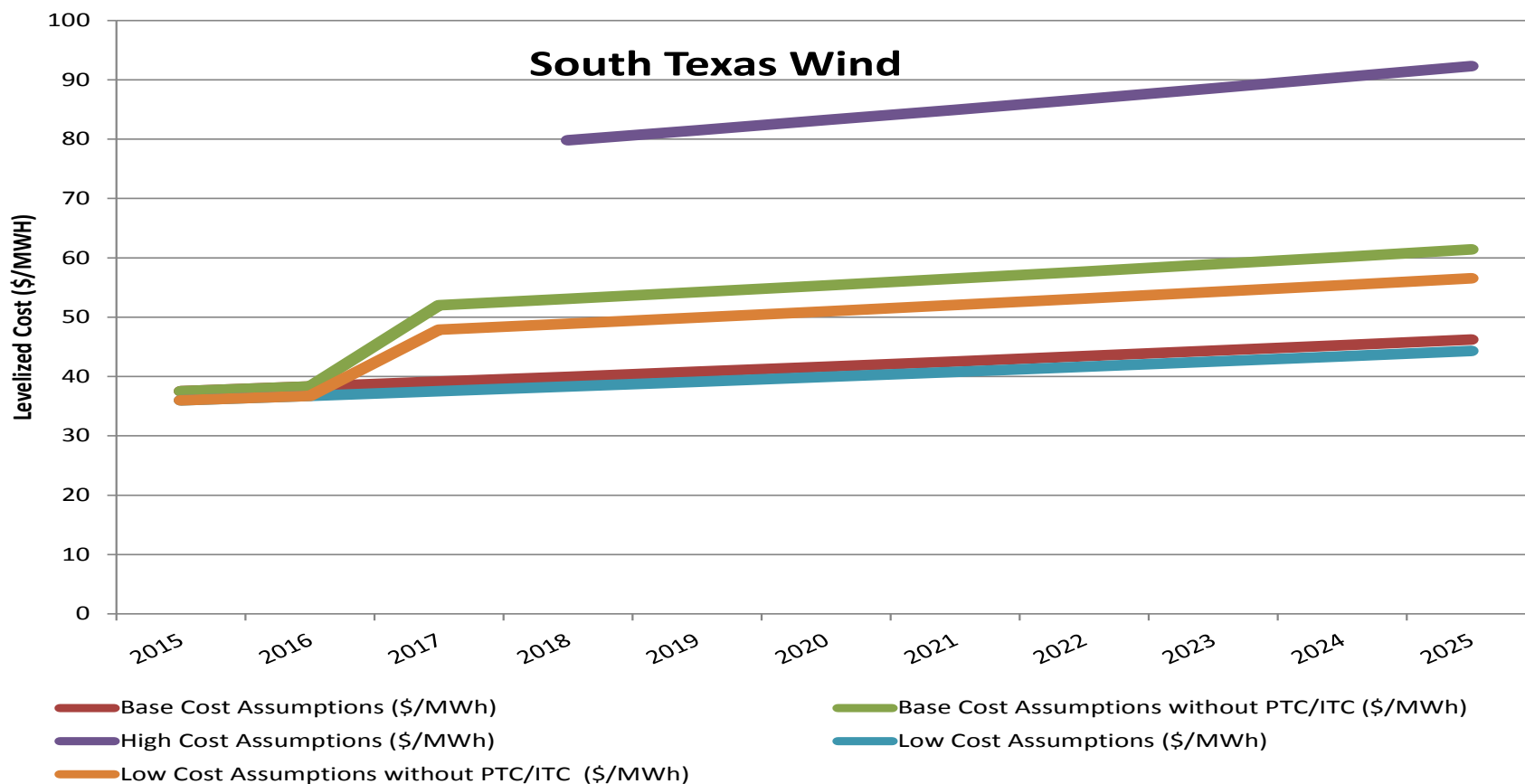
## Note:

1. 2015 cost range with PTC/ITC generally based on recent Austin Energy Bids
2. Solar PV assumed flat through 2017 (i.e. cost decreases at about general inflation rate of 2.1%) then increases at 2.1% general inflation through 2025
3. Wind cost assumptions escalated at general inflation rate of 2.1%
4. High cost assumes higher end of AE bids and the 30% Investment Tax Credit (ITC) and Production Tax Credit (PTC) Expire
5. Low Cost assumption may be lower than actual bids when high market price/high gas price conditions exist.





# South Texas Wind Cost Assumptions for Resource Planning



## Note:

1. 2015 cost range with PTC/ITC generally based on recent Austin Energy Bids
2. Solar PV assumed flat through 2017 (i.e. cost decreases at about general inflation rate of 2.1%) then increases at 2.1% general inflation through 2025
3. Wind cost assumptions escalated at general inflation rate of 2.1%
4. High cost assumes higher end of AE bids and the 30% Investment Tax Credit (ITC) and Production Tax Credit (PTC) Expire
5. Low Cost assumption may be lower than actual bids when high market price/high gas price conditions exist.

