



# REC Market Value in New Wind Development

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**PPM Energy**



# Introduction to PPM Energy

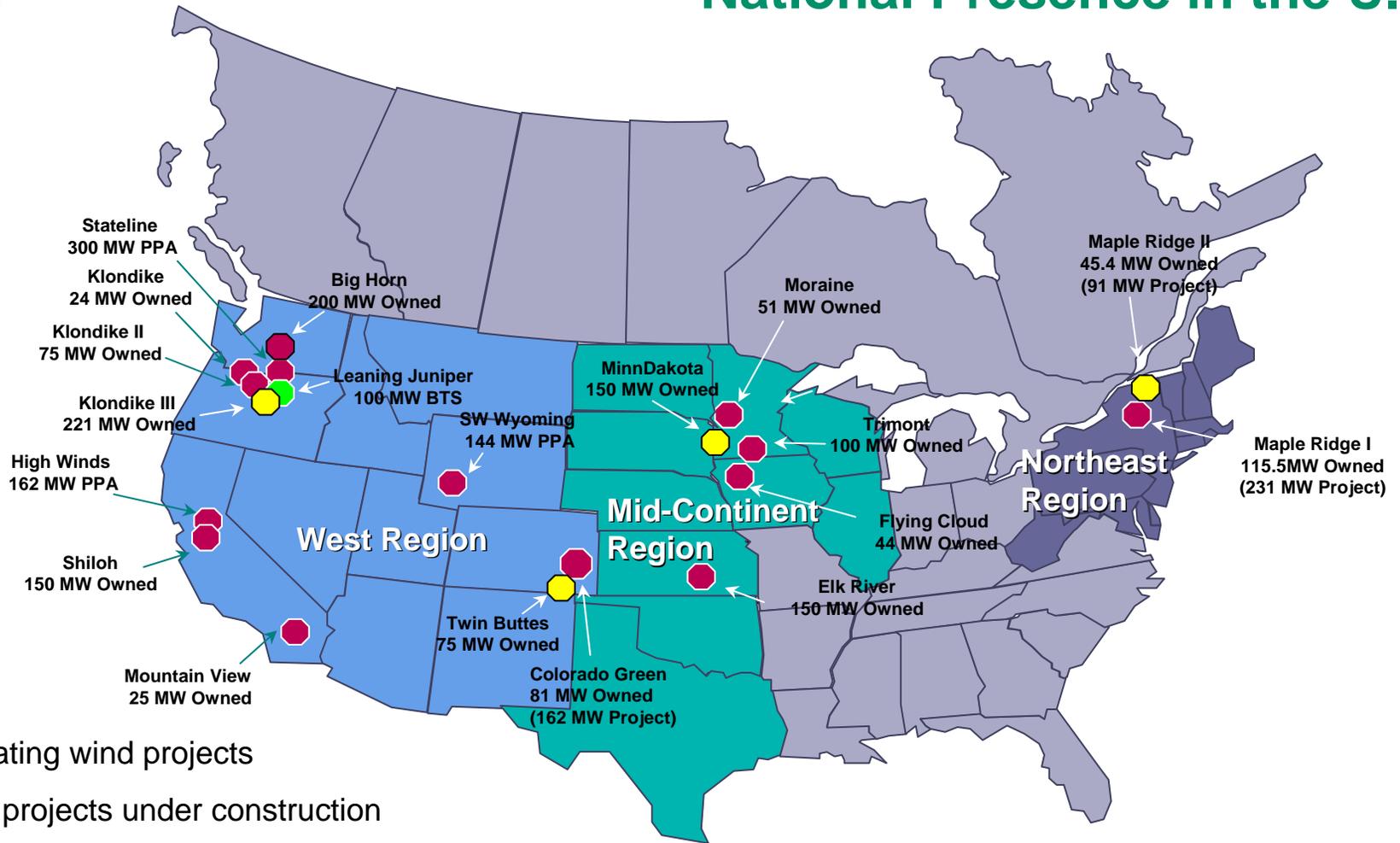
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- Competitive wind power and gas storage subsidiary of ScottishPower, an international energy company
- More than 400 employees in US and Canada; Company headquarters in Portland, Oregon
- PPM controls over 2,000 MW of wind power in operation or under construction across the United States
- Largest wind marketer in WECC
- Leveraging a utility/merchant skill set to broaden wind market
- Wholesale supplier to utilities under long-term power supply agreements

***Portfolio Goal: To have over 3,500 MW of wind power developed or controlled by PPM by 2010***



# PPM has an Established National Presence in the U.S.



- Operating wind projects
- Wind projects under construction
- Build-To-Sell

Operating Assets	1,255 MW
2006/07 Construction	857 MW
2010 Goal	3,500 MW



# Wind Power as a Core Portfolio Option

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## Who Buys?

- IOUs
- Energy marketers
- Aggregators
- Municipal entities
- Co-ops
- Irrigation districts
- Green Power Marketers
- Merchant Players

## Why?

- Competitively priced long-term resource
- Strong hedge against fuel and electricity market price risk and volatility
- Portfolio diversification
- RPS compliance
- Environmental & regulatory hedge
- Social Responsibility Platform

### ***Primary Revenue Streams:***

- ***Bundled Energy & REC product in long-term off-take agreements***
- ***REC Off-take agreements***
- ***Build-Own-Transfer***



# Requirements for Wind Project Financing

## Debt or Equity Investors are Seeking:

- Predictable, secure stream of operating profits to cover debt service, meet earnings targets
- Power and REC purchase agreements with Creditworthy Customers that:
  - Have a balanced risk allocation
  - Are of sufficient term to repay debt (at least 10 years)
- Proven technologies and manufacturers
- Proven Developer Track Record
- Transmission Access with clear contractual rights to the transmission
- Minimal or no permitting or regulatory risk
- Portfolio of projects is preferable:
  - Less customer concentration
  - Different wind regimes enhances cash-flow predictability



***Wind Power Revenue Streams are attractive to investors due to embedded REC value premiums as compared to “brown power” alternatives***



# The Value & Challenges of the Voluntary Markets

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## Value

- Provides additional avenue to optimize wind/renewable assets and provide additional channels to sell wind
- Voluntary demand demonstrates feasibility of renewable resources to utilities and other buyers
- Creates educated consumers requesting these products
- Voluntary markets can lead to growth of Compliance markets
- Ability to promote high-value technologies, such as wind or solar

## Challenges

- Short-term commitments vs. financing requirements of project developers
- Credit assurance capability vs. investment grade entities
- Stronger utility & compliance markets can lead to supply shortages for voluntary buyers and price increases
- Potential carbon market impacts

***Voluntary Markets will continue to play essential role in creating consumer demand for renewables and wind power***



## Contact Information

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