



# NorthWestern Energy



## ETIC Presentation - Resource Diversification

November 8, 2013  
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Lead Supply Planner





# RPS in Montana

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Montana adopted a Renewable Energy Portfolio Standard (RPS) in 2005 (69-3-201 MCA)

- RPS requirement (metered sales)
  - 8% renewable by 2008
  - 10% renewable by 2010
  - 15% renewable by 2015
- Community Renewable Energy Projects (CREP)
  - Subset of RPS
  - Statewide requirement, shared responsibility (90%)
  - Defined by “local ownership”
    - 50 MW installed capacity by 2012
    - 75 MW installed capacity by 2015



# NorthWestern – RPS Resources

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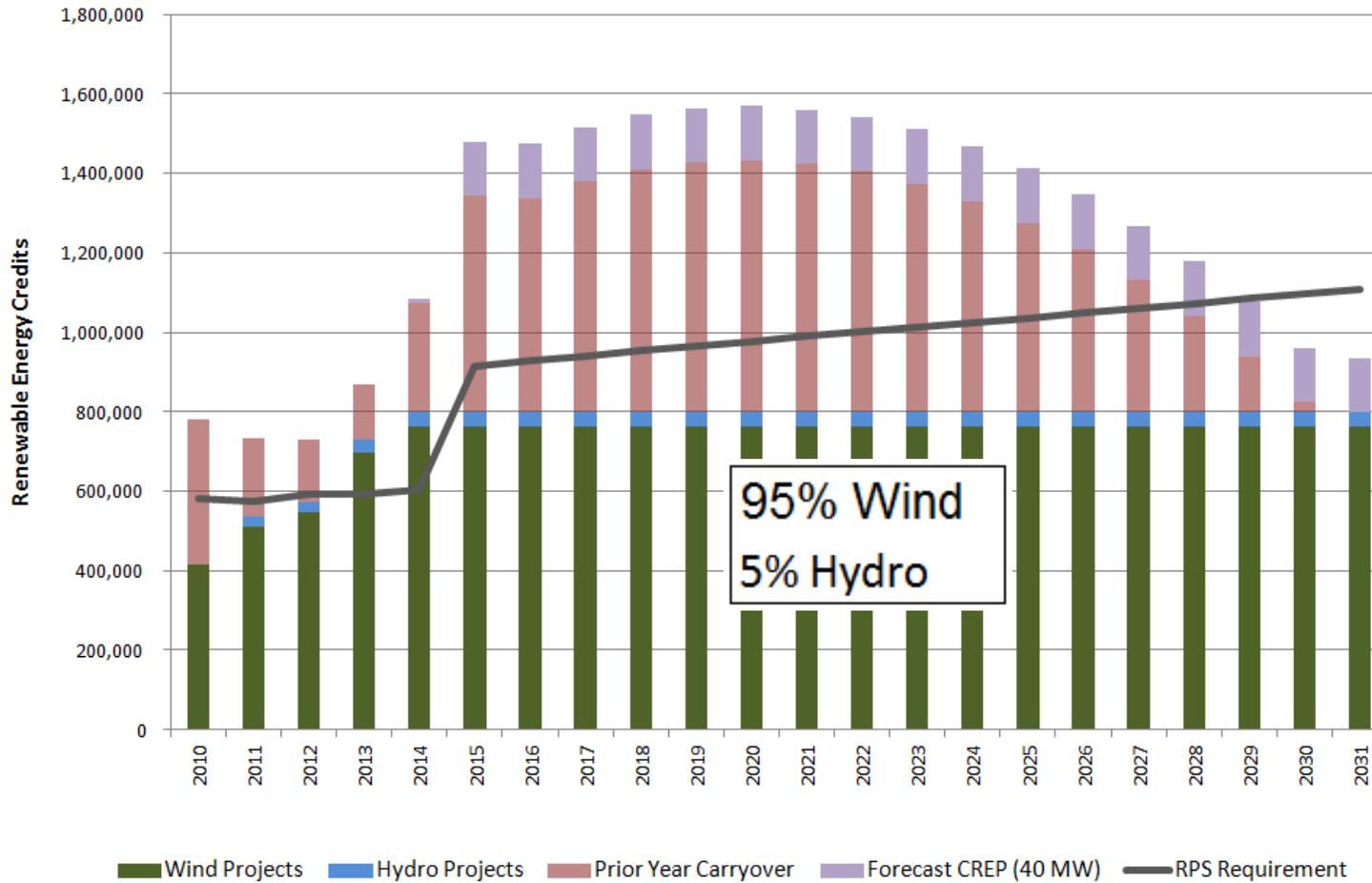
## RPS Resources

Resource	Type	Fuel	MW	Annual MWH
Judith Gap	PPA	Wind	135	467,000
Gordon Butte	QF/CREP	Wind	9.6	33,750
Musselshell	QF	Wind	10	28,600
Musselshell 2	QF	Wind	10	28,000
Fairfield Wind	QF	Wind	10	31,900
Two Dot Wind, LLC	QF	Wind	10	35,400
Spion Kop	BOT	Wind	40	138,400
2012 CREP RFP	CREP	Wind	20	70,100
2013 CREP RFP	CREP	Wind	20	66,600
Turnbull Hydro	PPA/QF	Hydro	13	25,000
Flint Creek Hydro	QF/CREP	Hydro	2	8,000
Lower South Fork	QF/CREP	Hydro	0.5	1,900
<b>Totals:</b>			<b>280.1</b>	<b>934,650</b>



# NorthWestern - RPS Forecast

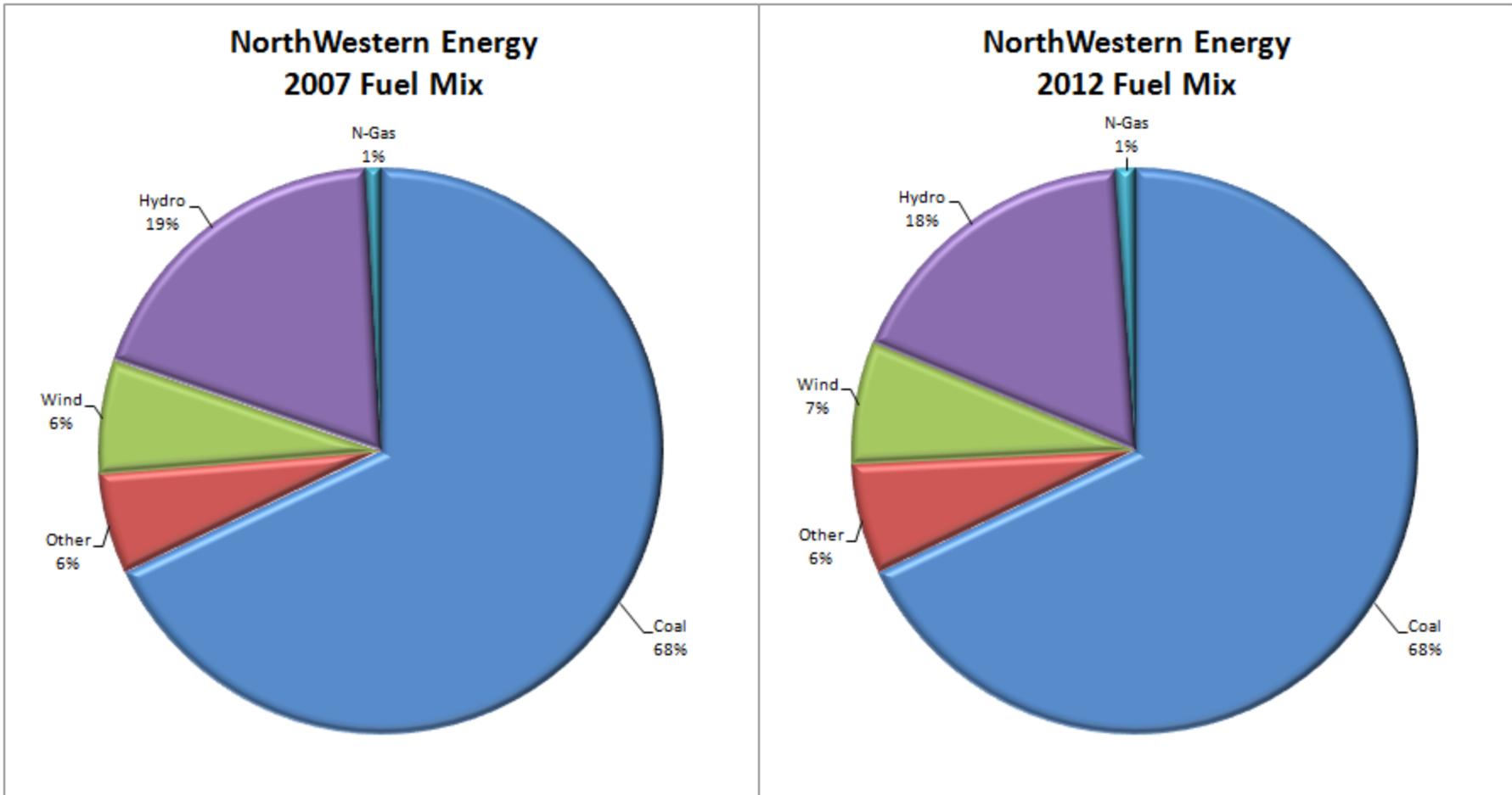
## NorthWestern Energy - Forecast RPS Compliance





# RPS Impact on NWE fuel-Mix?

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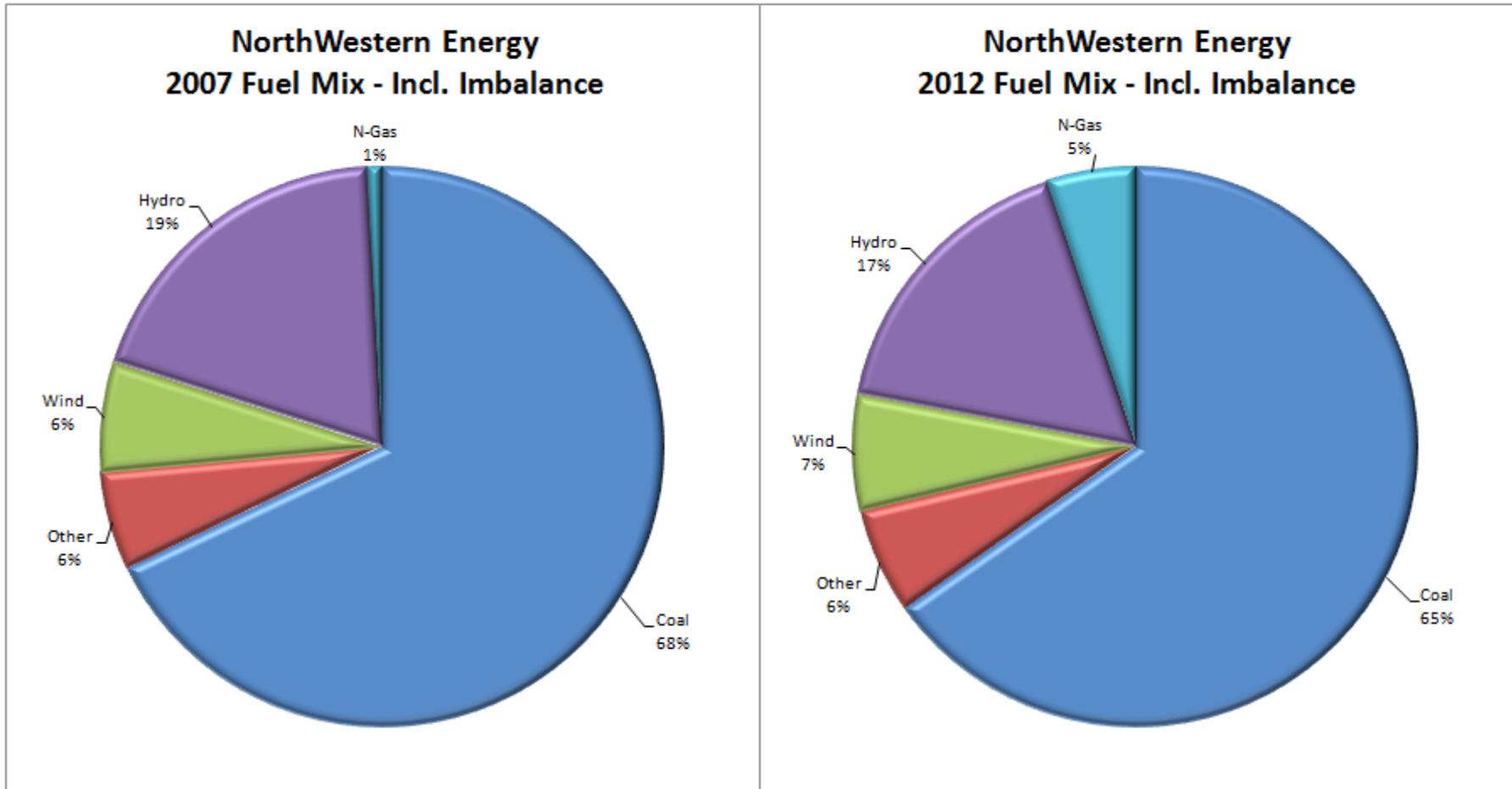


**Notes:**

- Data Source: 2007 and 2012 Schedule 34, NorthWestern Energy Annual Report to the MPSC
- Energy Imbalance is a function of transmission and is excluded from this analysis
- PPLM purchases: 84% coal, 16% hydro
- Market purchases: 65% coal, 35% hydro



# NWE fuel-Mix Incl. Imbalance

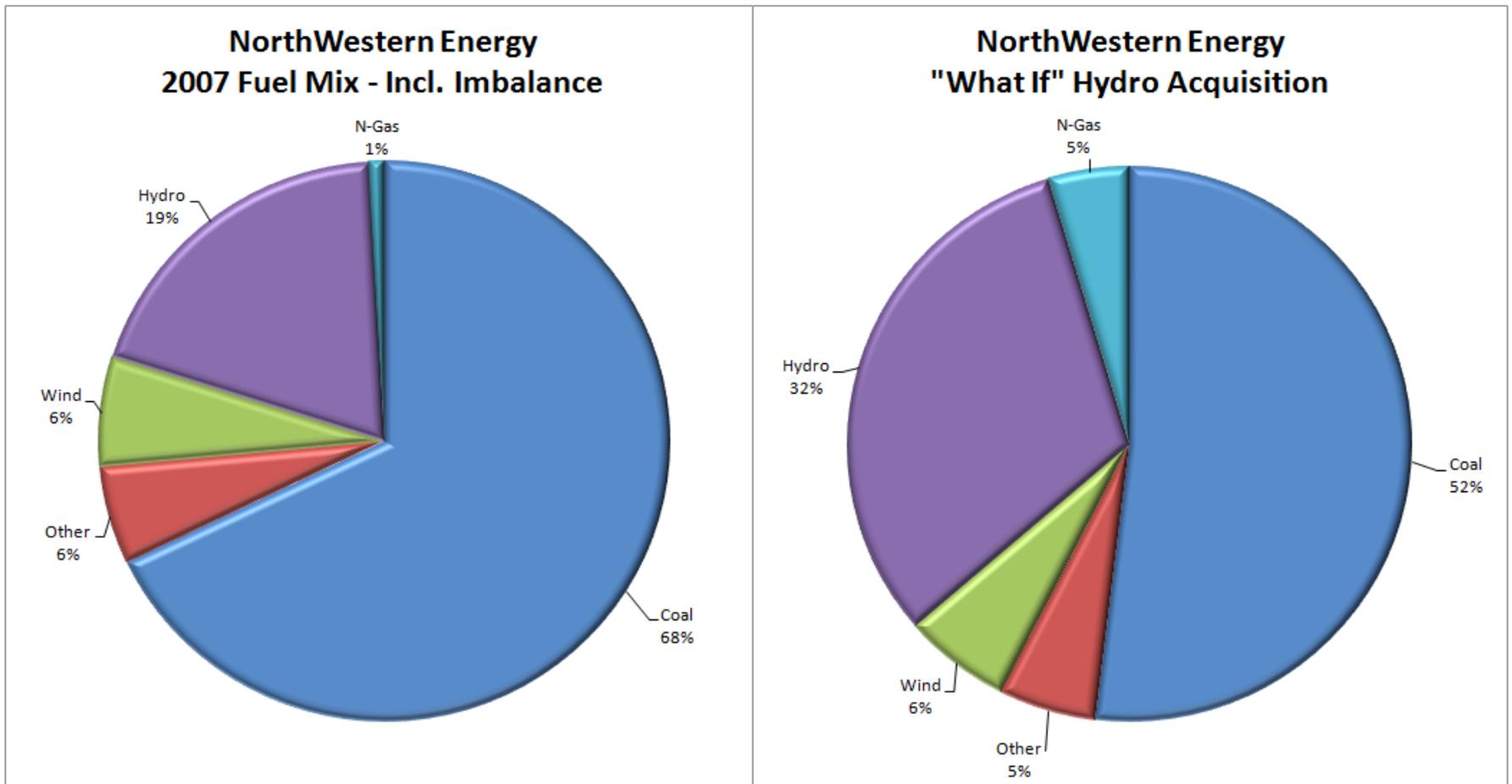


**Notes:**

- Data Source: 2007 and 2012 Schedule 34, NorthWestern Energy Annual Report to the MPSC
- PPLM purchases: 84% coal, 16% hydro
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# NWE "What If" Fuel Mix



**Notes:**

- Data Source: 2007 and 2012 Schedule 34, NorthWestern Energy Annual Report to the MPSC
- Hydro Acquisition substituted for PPLM purchase
- Remaining Hydro substituted for Market purchases





# End of Presentation

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ETIC Presentation - November 8, 2013

