

Implementing RPS

Effective programs and practical steps

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Intro

- Good morning, Mister Chair, members of the committee. I'm Michael McDiarmid. I'm an energy engineer and I worked at the Energy, Minerals and Natural Resources Department for 24 years, before and after passage of the Renewable Energy Portfolio Standard. I appreciate your time and this opportunity to share from my experiences while working at EMNRD. I think the programs initiated and actions taken by the legislature and state agencies, were instrumental in advancing renewable energy in the State. I think continued governance in this direction is important for continued progress; and our state government has the experience and tools to compete in future markets.

RPS impact

- Roughly [half of the growth](#) in U.S. renewable energy generation since 2000 can be attributed to state RPS requirements.
 - U.S. Renewables Portfolio Standards, 2017 Annual Status Report, Galen Barbose, Lawrence Berkeley National Laboratory, July 2017
- Contributes to long term stability of electricity markets and economic benefits.
- Reduces uncertainty and risk of pursuing project development. Potential cost reduction. A state with an RPS is more competitive.
- Works in conjunction with other programs and incentives such as Renewable Energy Production Tax Credit (PTC) and Energy Efficiency Resource Standard (EERS).

Wind Energy Program - EMNRD

- Resource assessment. Provided several years of investment grade wind data. Critical for commencing early projects.
- Case study. Detailed step-by-step project development in NM.
- Economic study. Revenue and jobs.
- Renewable Energy Production Tax Credit (PTC)
 - Critical actions by legislature and government agencies
 - Rulemaking and administration was intensive over several years.
 - Project approval process. Interpretation of statute and rules.
- Mesalands Community College. Wind technology training center.
 - 1.5MW GE wind turbine. DOE/EMNRD grant.

Solar electricity

- PTC revisions
- RPS carve outs
- Again legislative action has been key in responding to evolving technology and changing markets.

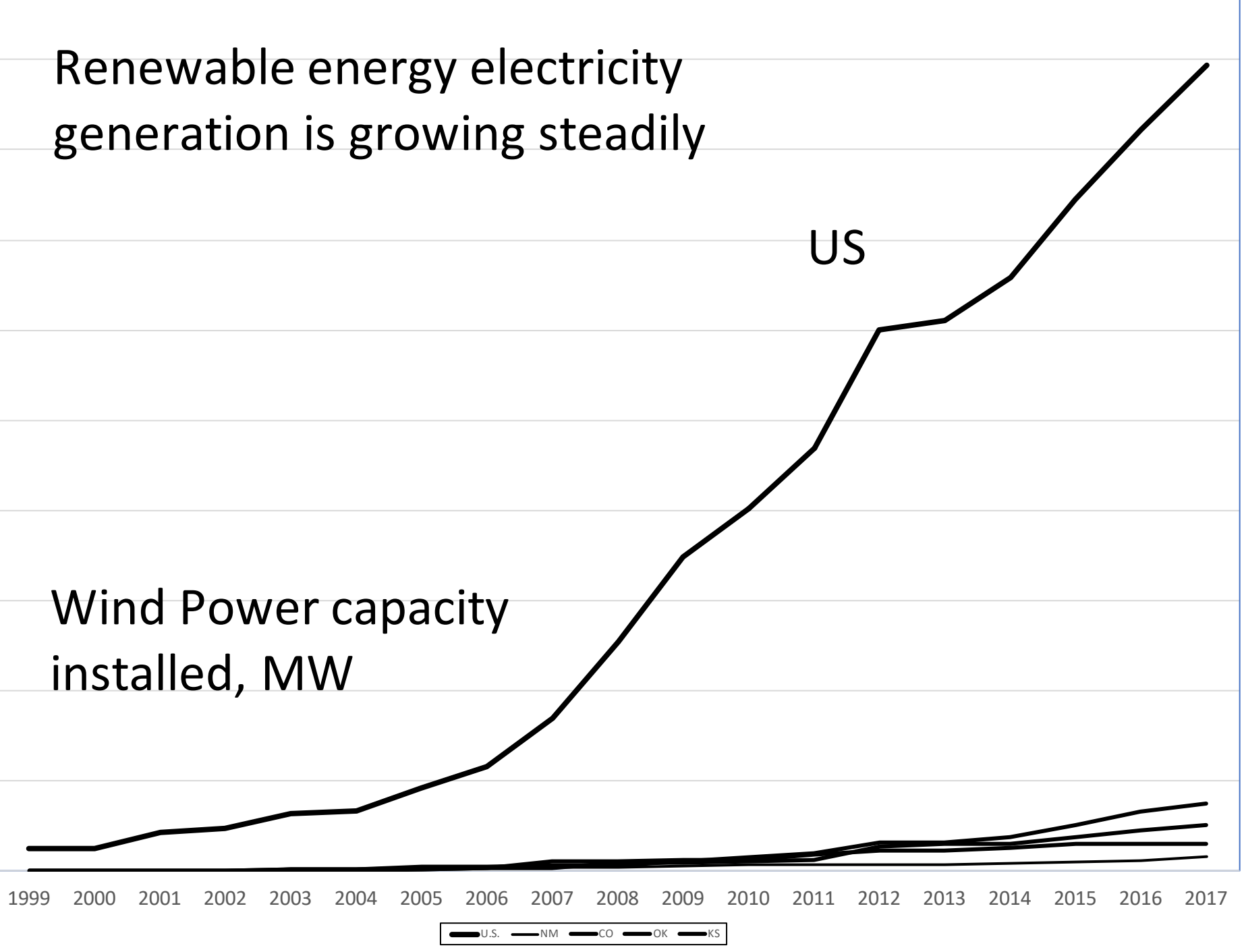
Renewable energy electricity generation is growing steadily

US

Wind Power capacity installed, MW

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017

U.S. NM CO OK KS



Where are the projects growing?

Installed wind power, MW

OK

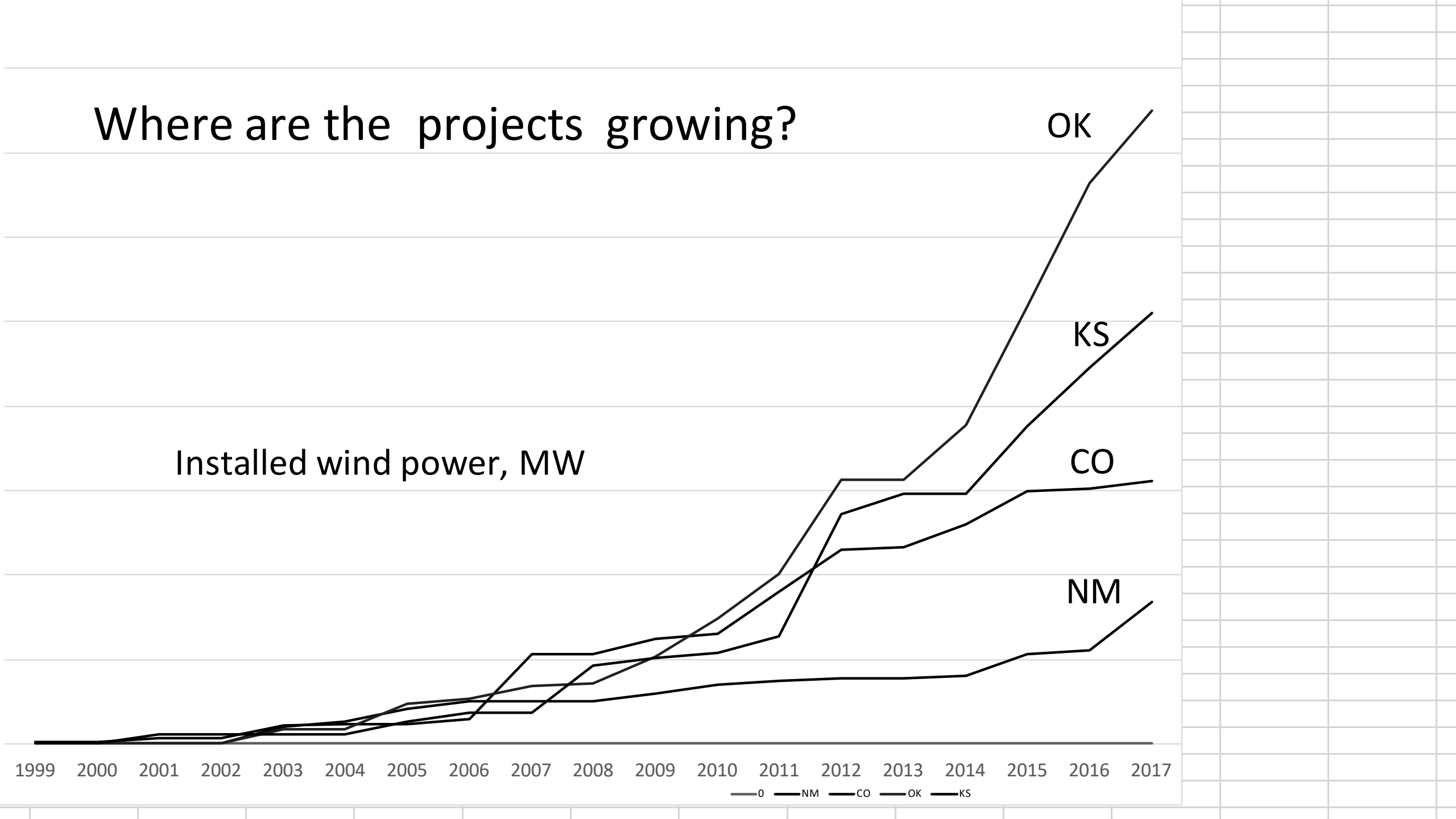
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Need for further governance

- Renewable energy continues steady growth
- But not necessarily in New Mexico
- Site selection often depends on very fine margins of project performance and strong competition among states.
- Legislative action has been instrumental in attracting successful projects
- Further work is needed for the long term transition

Further steps toward clean energy future

- Extended RPS. Provide long term direction and stability.
- Increased support for RETA. Transmission development is key to greater RE for instate and export.
- Expand energy efficiency programs. Including Demand Side Management (DSM). Reduce total consumption, relieve low-income households, balance renewable variability.
- New Mexico state government has the experience and tools necessary to compete in future markets.