

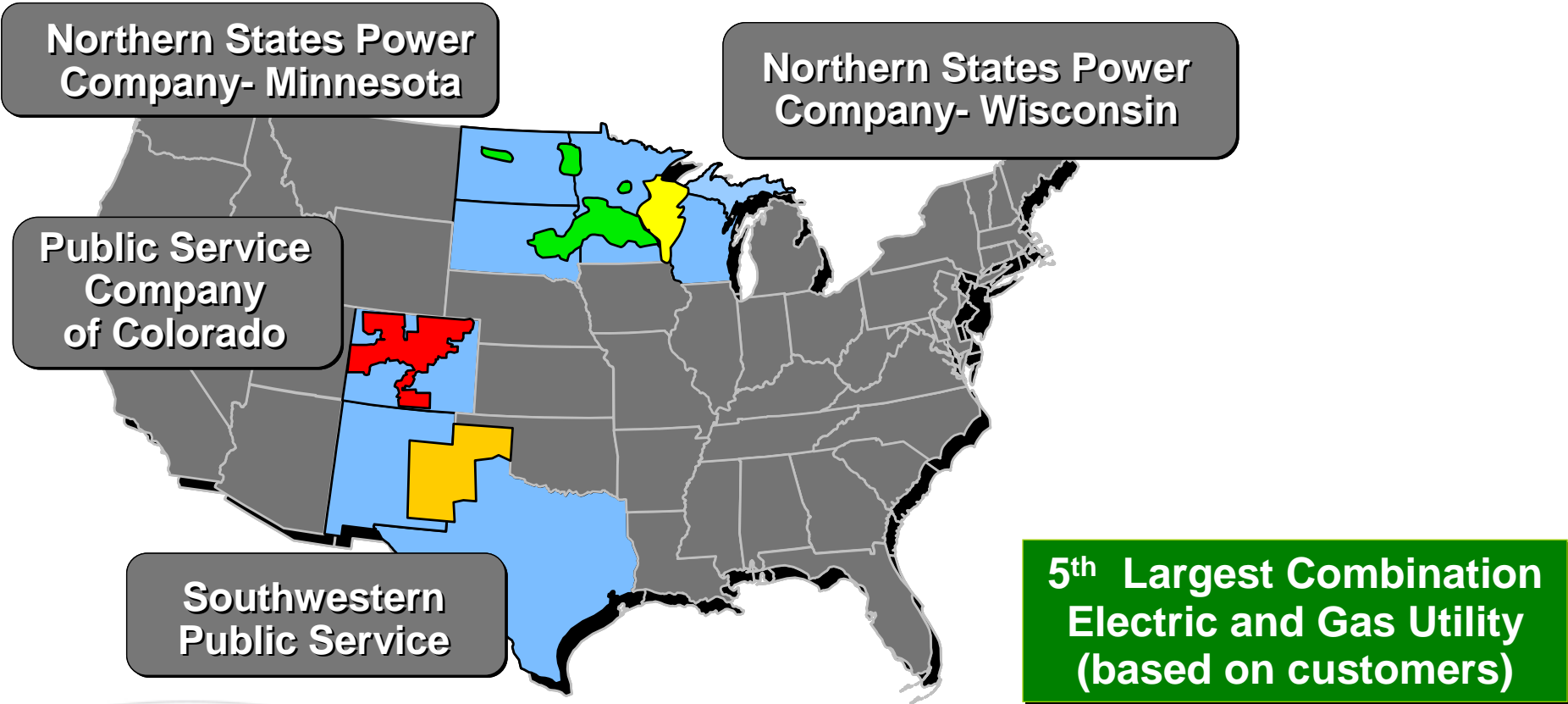


Xcel Energy Renewable Resources

Jim Hill

February 7, 2012

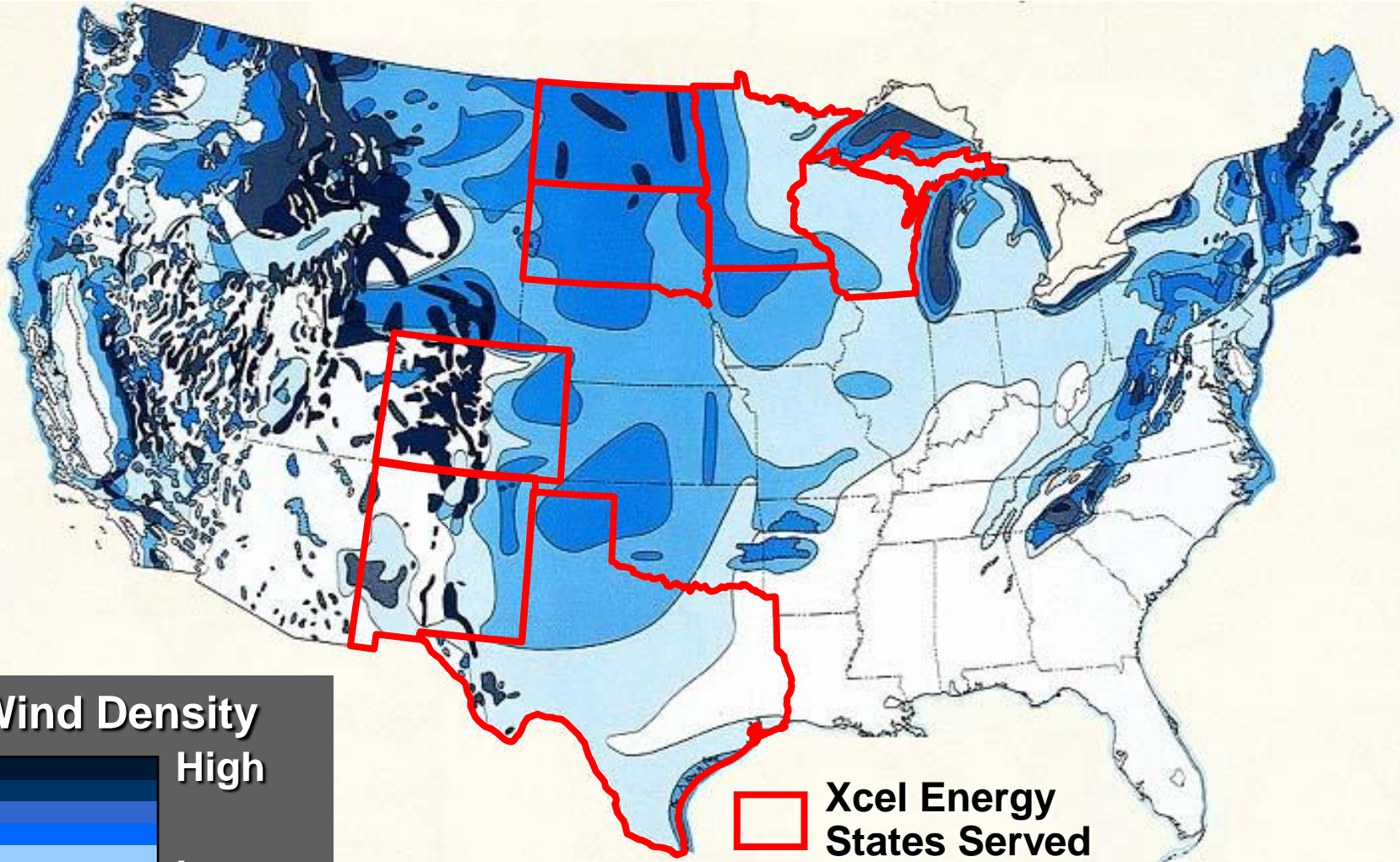
Xcel Energy Overview



Xcel Energy Renewable MW (EOY 2011)

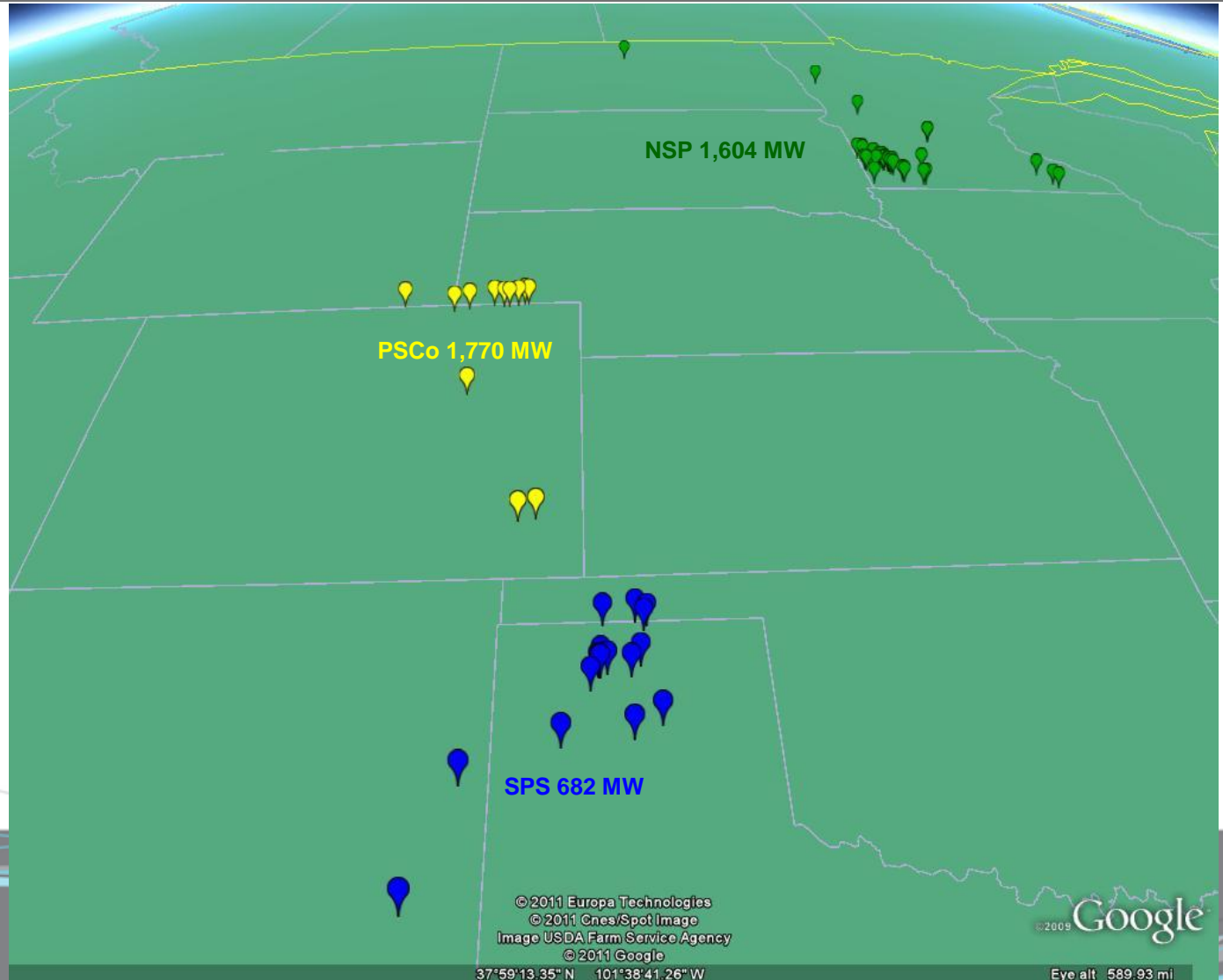
	NSP	PSCo	SPS
Biomass \ Landfill Gas	310	3	0
Hydro	287	67	0
Utility Solar (AC)	0.3	52	50
DG Solar (AC)	3.7	91	3.5
Wind	1,604	1,770	682

Xcel Energy and Wind Potential



Xcel Energy Wind Farm Locations

Xcel Energy manages output from 4.1GW of wind energy across the three operating companies (NSP-MN, PSCo, SPS) and six states (CO, TX, NM, MN, SD, ND)



Xcel Energy RES Compliance

■ Sufficient Wind RECs to meet RES

- NSP ~ 2019 (MN), beyond 2030 (WI)
- PSCo ~ 2029
- SPS ~ 2025

■ Additional REC needs

- PSCo ~ retail DG (Solar*Rewards)
- SPS ~ biomass and solar (NM)

Renewable Acquisition

- **NSP, PSCo, and SPS are Regulated Utilities**
- **Electric Resource Plan Competitive Solicitations**
- **Separate Renewable Solicitations**
- **Special Programs (Solar*Rewards)**

Public Service Co. of Colorado



Electricity Customers	1.36 million
Natural Gas Customer	1.3 million
Service Territory	8,200 sq mi
Communities Served	165
Employees	3,959

Public Service of Colorado

Electric Resource Plan (ERP)

■ ERP filed every 4 years (2003, 2007, 2011 ...)

➤ Primary ERP components

- Current power supply mix
- Sales and demand forecast
- Projection of resource needs
- Proposed generation technologies to add
- Competitive procurement process or self-build

Public Service of Colorado

2011 ERP Schedule (Docket No. 11A-869E)

■ Phase 1 (Evidentiary Hearings)

- PSCo filed ERP + testimony **Oct 31, 2011**
- Interveners file answer testimony **June 4, 2012**
- PSCo files rebuttal testimony **July 16, 2012**
- Hearings before Commission **Aug 20-31, 2012**
- Commission issues initial decision **Oct - Nov 2012**

■ Phase 2 (Resource Acquisition Process)

- Competitive bidding process **Jan 2013**
- 120-day bid evaluation period (IE)
- Final bid evaluation report & selections **June 2013**
- Commission issues final decision **Fall 2013**
- Company implements approved plan

Set dates
Estimated dates

Public Service of Colorado

Phase 2 Competitive Bidding Process

- **Issue All-Source RFP (competitive solicitation)**
 - Dispatchable RFP
 - Renewable RFP
 - Semi-Dispatchable RFP
- **Economic Screening of bids by technology**
 - \$/MWh LCOE (includes transmission)
- **Advance best bids to computer modeling**
 - Develop least-cost and higher cost portfolios from bids
 - Add renewables and Section 123 resources
 - Estimate portfolio costs under various sensitivities
 - Select preferred portfolio
 - Report to Commission on results

For More Information

- <http://www.xcelenergy.com/>
- select “About Us”
- select “Resource Plans”
- select “Public Service Company of Colorado Electric Resource Plan 2011”
 - Testimony
 - Application & ERP Documents
 - Additional Resources (wind related studies)



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