

SPS 2015 IRP



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Agenda

- ◆ Review SPS L&R (based upon March 2015 load forecast)
- ◆ Overview of key SPS IRP issues
 - ▶ Variability of forecasted loads
 - ▶ SPP Integrated Marketplace
 - ▶ EPA Section 111(d)
 - ▶ Role of renewable energy in meeting 111(d)
 - ▶ Retirement (of aging) SPS generation fleet
 - ▶ SPS coal generation strategy (incl. acquisition of Tolk water)
- ◆ Discuss final Public IRP Meeting content & date

SPS L&R (Based on March 2015 forecast)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Existing Generation	4,529	4,529	4,529	4,529	4,529	4,529	4,529	4,529	4,529	4,529	4,529
Total Purchased Power	1,333	1,333	1,333	1,333	861	861	853	853	853	633	633
Total Renewable	120	120	160	160	160	232	232	232	232	232	232
<i>Expansion Plan:</i>											
Total Renewable	-	10	21	25	27	46	49	57	60	64	67
Total Retirements	-	-	-	-	(112)	(202)	(202)	(314)	(426)	(522)	(789)
Contract Extension	-	-	-	-						220	220
Net Dependable Capacity	5,982	5,992	6,043	6,047	5,465	5,466	5,461	5,357	5,248	5,156	4,892
Full Requirements Load:											
Retail	3,547	3,722	3,861	4,048	4,169	4,287	4,411	4,538	4,657	4,779	4,897
Wholesale	1,077	1,115	1,083	1,094	465	476	486	-	-	-	-
DSM Impact	-	-	-	-	-	-	(1)	(2)	(3)	(4)	(5)
Interruptibles	(25)	(27)	(28)	(29)	(30)	(30)	(31)	(32)	(33)	(33)	(34)
Total SPS Firm Load	4,599	4,811	4,916	5,113	4,605	4,732	4,865	4,504	4,622	4,742	4,857
Firm Partial Req. Load	300	300	200	200	170	172	174	326	328	280	283
Firm Load Obligation	4,899	5,111	5,116	5,313	4,775	4,904	5,039	4,831	4,950	5,022	5,140
SPP Capacity Margin (%)	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
Target Capacity (MW) - 12%	668	697	698	725	651	669	687	659	675	685	701
Other Reserves = NM Coops	7	7	13	13	13	13	13	-	-	-	-
Total Required Reserves	675	704	711	738	664	682	700	659	675	685	701
Excess Capacity	1,083	882	927	733	691	562	422	526	298	134	(248)
Capacity Position: Long											
(Short)	408	178	217	(4)	27	(120)	(278)	(133)	(377)	(551)	(949)

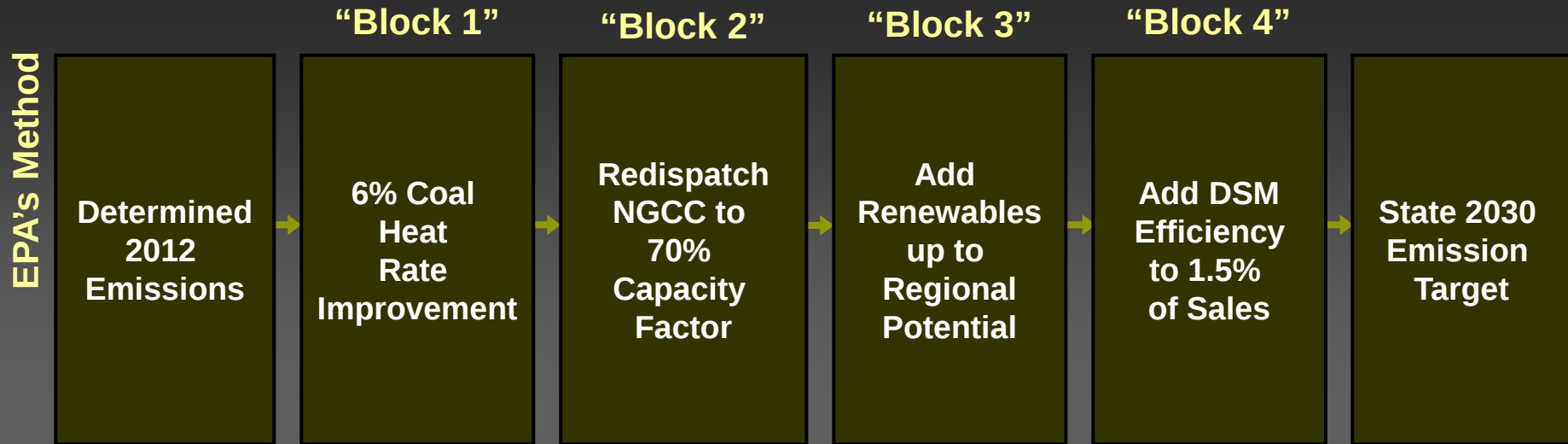
Load Forecast Variability

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
April 2010	4946	5038	4453	4547	4598	4374	4457	4494	4579
March 2011	5026	5111	4504	4588	4676	4321	4405	4440	4525
April 2012	5066	5147	4533	4617	4698	4345	4420	4445	4522
March 2013	4980	5053	4406	4485	4562	4257	4329	4353	4426
April 2014	5233	5380	4788	4915	5040	4869	4985	5054	5174
March 2015	5117	5314	4775	4904	5039	4831	4950	5022	5140
MAX	5233	5380	4788	4915	5040	4869	4985	5054	5174
MIN	4946	5038	4406	4485	4562	4257	4329	4353	4426
Forecast Uncertainty	287	342	382	431	478	612	656	701	749

SPP Integrated Marketplace

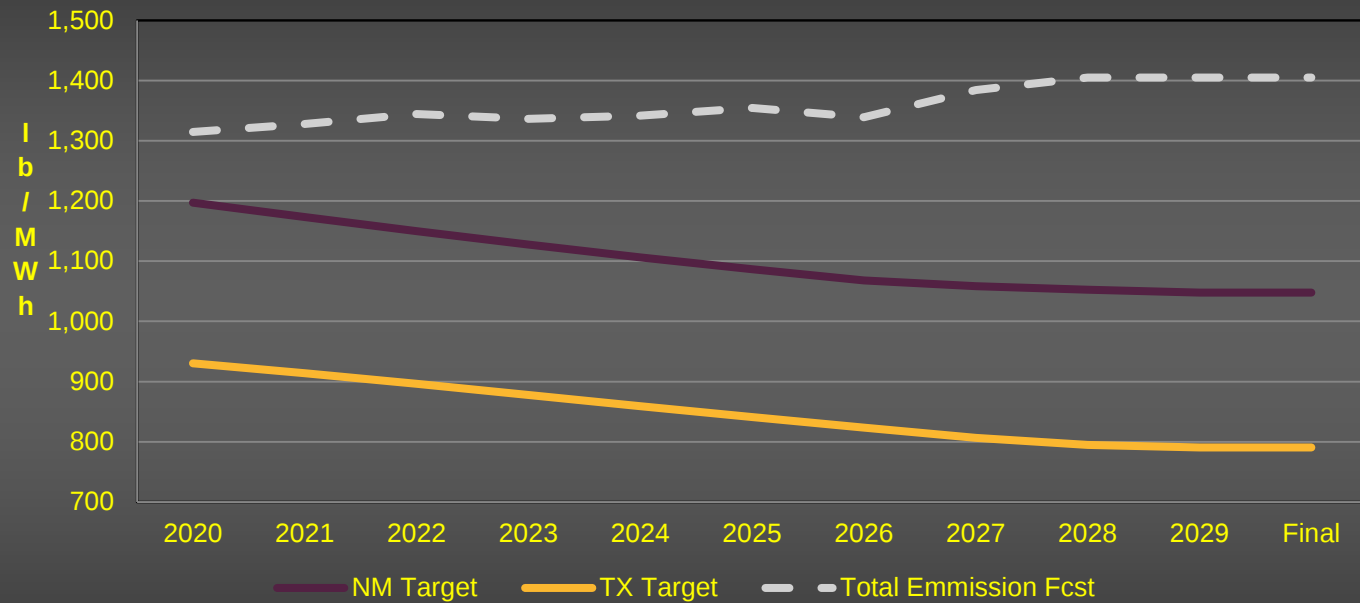
- ◆ Started March 2014
 - ◆ Centralized unit commit & dispatch, consolidated 11 BA's into one single BA
 - ◆ Day-ahead market with Transmission Congestion Rights
 - ◆ Real-time Balancing Market
 - ◆ Operating Reserves and Regulation are market-based
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- ◆ IM = Significant change in SPS's unit operations

How EPA Set 111(d) State Targets



Note: SPS does not have to comply with specific blocks. Just the end target.

111d Carbon Targets vs SPS Forecast



111(d) Rule: Timeline and Process Overview

- ◆ June 2014: EPA proposes 111(d) rule
- ◆ Summer 2014: Analyze rule and develop positions
- ◆ August 2014: Present proposed changes to rule to internal executives, White House and EPA
- ◆ December 1, 2014: Comments due to EPA
- ◆ June 2015: EPA issues Final Rule
- ◆ 2014-2016: States develop compliance plans
- ◆ 2016-2017: State compliance plans due
- ◆ ~2018: EPA approves state compliance plans
- ◆ 2020: First compliance year (under proposed rule)

Policy Advocacy on Rule

State Compliance Plan Strategy

Role of renewable energy in meeting 111(d)

- ◆ Availability of existing PTC wind under safe-harbor provision
- ◆ Federal extension of PTC, ITC = 30%
- ◆ Incremental & existing count towards meeting EPA 111(d)
- ◆ Potentially less expensive than conventional NG resources

SPS Generation Retirements

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>	<u>2033</u>	<u>2034</u>	<u>2035</u>	<u>2036</u>
PX1	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)	(41)
Cunn 1	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)	(71)
PX2		(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)	(90)
Nichols 1				(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)
Nichols 2					(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)	(112)
Plant X 3						(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)	(96)
Maddox 2							(61)	(61)	(61)	(61)	(61)	(61)	(61)	(61)	(61)	(61)	(61)	(61)
Carlsbad							(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)	(11)
Cunn 2							(195)	(195)	(195)	(195)	(195)	(195)	(195)	(195)	(195)	(195)	(195)	(195)
Plan X4									(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)	(190)
Maddox 1									(113)	(113)	(113)	(113)	(113)	(113)	(113)	(113)	(113)	(113)
Nichols 3												(247)	(247)	(247)	(247)	(247)	(247)	(247)
Jones 1													(242)	(242)	(242)	(242)	(242)	(242)
Jones 2																(243)	(243)	(243)
Quay																(16)	(16)	(16)
Harr 1																		(348)
TOTAL	(112)	(202)	(202)	(314)	(426)	(522)	(789)	(789)	(979)	(1092)	(1092)	(1339)	(1581)	(1581)	(1581)	(1840)	(1840)	(2188)

SPS Coal Generation

- ◆ Fuel savings of coal relative to natural gas
 - ◆ Are low NG prices here to stay?
 - ◆ Future (potentially tighter) emission control standards
 - ◆ SCR, NSCR
 - ◆ DSI, Scrubbers
 - ◆ Future water availability at Tolk Station
 - ◆ Impact of meeting EPA 111(d) on existing coal generation
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IRP Information

- ◆ Web Page

- ◆ www.xcelenergy.com/Company/Rates_&_Regulations/Resource_Plane

- ◆ Brian Fleming – Xcel Energy/SPS Contact

- ◆ Address - 600 S. Tyler, Suite 2900, Amarillo TX 79101

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Next Meeting

- ◆ **Date:**

- ◆ **Tuesday - June 2, 2015**

- ◆ **Time:**

- ◆ **10:00am to 12:00pm (Central Time)**

- ◆ **9:00am to 11:00am (Mountain Time)**

- ◆ **Location:**

- ◆ **Webinar Meeting**



