

# **Prairie State Energy Transmission**





### **GENERATION**

Prairie State generates base-load electricity for its ownership group.

# WHOLESALE MARKET

All generation of electricity is scheduled through regional transmission organizations (RTO).

IL electricity is scheduled through MISO & PJM.

## **TRANSMISSION**

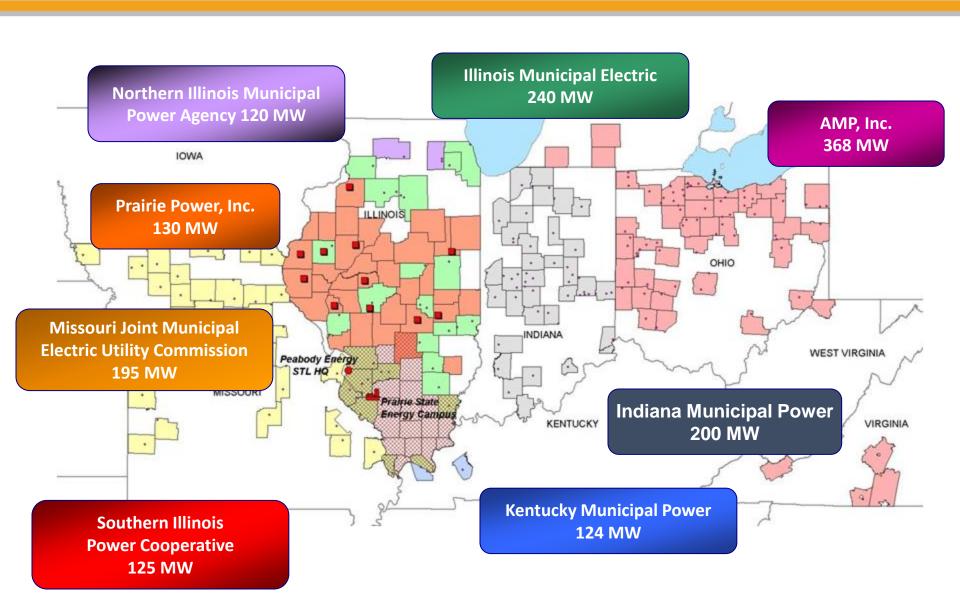
Transmission lines
carry electricity
from Prairie State
to our
member-owner
communities in 8
Midwestern states.

### DISTRIBUTION

Distribution lines carry electricity to homes and businesses. Our member-owners provide retail service to their specific territories.

# Prairie State Owners Serve More Than 2.5 Million Families In Eight States





## **Public Power Partnership**



- Prairie State represents the investment of Midwestern municipals and rural electric cooperatives in stable, baseload power
- 95 % of Prairie State's power is dedicated to Midwestern coop territories and municipalities
- 124 MWs produced used by communities in Kentucky
- Nationally, Prairie State's Owners represent 10% of public power

### Reliable Public Power Provider

- System reliability
- Improved economic development
  - Preparing for inevitable market changes through generation investment

## Prairie State Leadership & Reliability Plan



## Leadership

- Conducting nationwide search for CEO
- COO: Randy Short
  - Joined PSGC in July
  - Reinforcing campus reliability
  - Unique power plant experience working in IL, with IL coal
- Vice President of Generation: Tom Kordick
  - PSGC Veteran : formerly served as Senior Engineering & Compliance Manager
  - More than 20 years of experience in electric utility operations, maintenance and engineering
- Power Plant General Manager: Ken Pollman
- Senior Vice President Mine: Paul Krivokuca
- Campus Safety Team

## Reliability

- Plant B&V Monitoring & Diagnostic Program
- Instruments & Controls Review
- Power Plant Projects
  - -Inconel welding on U2 furnace walls
  - -Air Quality Control System Projects
- Business Systems Improvements
- Mine Enhancement Plan & Coal Inventory Management

# **Production Improvement**



	July 2013	July 2014
Unit 1:	61.76	77.23
Unit 2:	24.79	69.97
Plant:	43.22	73.59

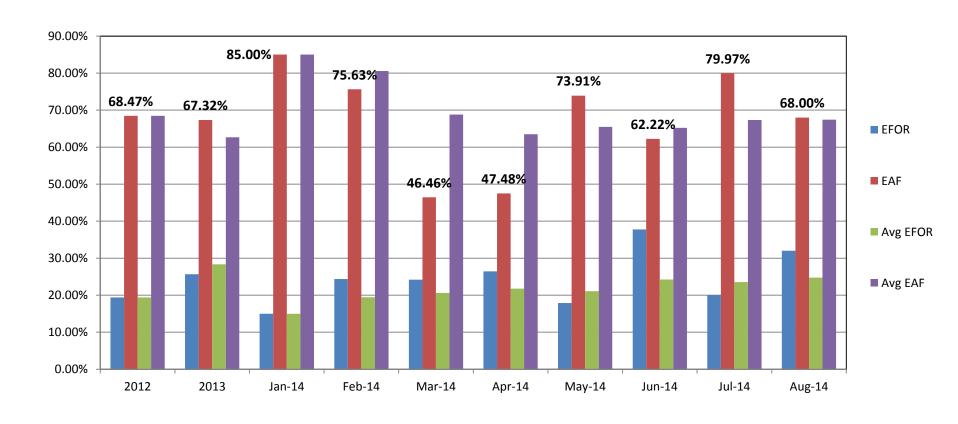
<u>Capacity factor</u> is a measure of how often an electric generator runs for a specific period of time. It indicates how much electricity a generator actually produces relative to the maximum it could produce at continuous full power operation during the same period.

# Power Plant Update - Plant EAF & EFOR Trends Since Commercial Operations

**PRAIRIE STATE** 

Updated through August 2014

**Generating Company** 



August 2014 EAF 68.00% EFOR 32.00% NCF 62.27% Number of Starts 5 2014 YTD EAF 67.44% EFOR 24.75% NCF 61.80% Number of Starts 27 Commercial – YTD EAF 65.29% EFOR 25.63% NCF 59.92% Number of Starts 79

## 2015 & 10 Year Budget - Strategic Overview



**Generating Company** 

2012 2013 / 2014 Start-up Shakedown

2017 2015 2016 Stabilizing Operations

2018 → 2024 Performance

**Approach Top Quartile Achievement** 

- 2018 EAF

EFOR - 2018 (approaches)

**TPMH - 2015** 

#### Start-up / Shakedown Historical Knowledge

- Lost MWh's Mitigated
- Flex Mine Labor
- Outage / R&M Cost History
- Boiler asset protection
- Boiler combustion tuning
- Absorber Gas flow pressure

#### **Stabilizing Operations**

#### Realistic Approach

- R&M Strategy
- Mine Enhancement Plan
- Secondary Mining
- 4 Quadrant Mining
- Compliance Reqm'ts Safety Focus
- Mission Critical Projects
  - o Reliability Driven

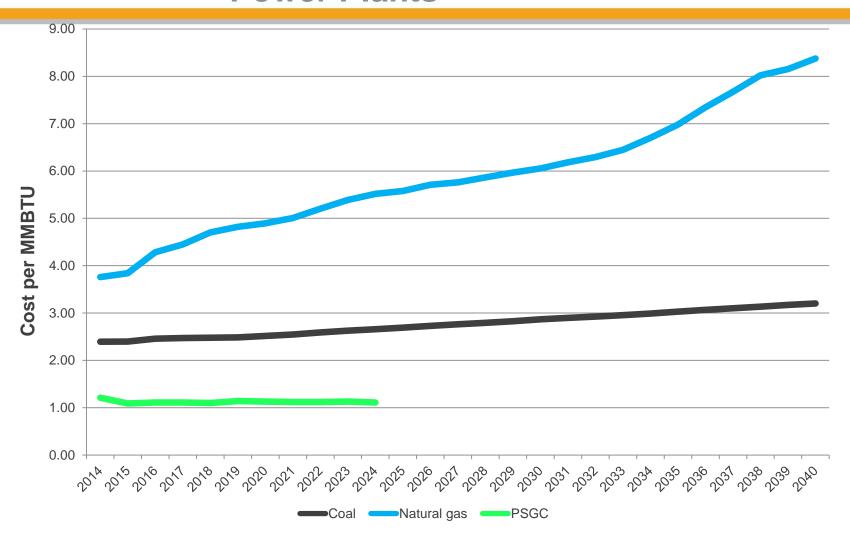
#### **Performance**

#### Out Year Focus

- Leverage safe and well trained work force
- Stable fuel supply
- Preventive Maintenance **Programs**
- Outage scheduling
- CCR Strategy
- Predictable Performance and Costs

# Average Delivered Fuel Prices to Electric Power Plants

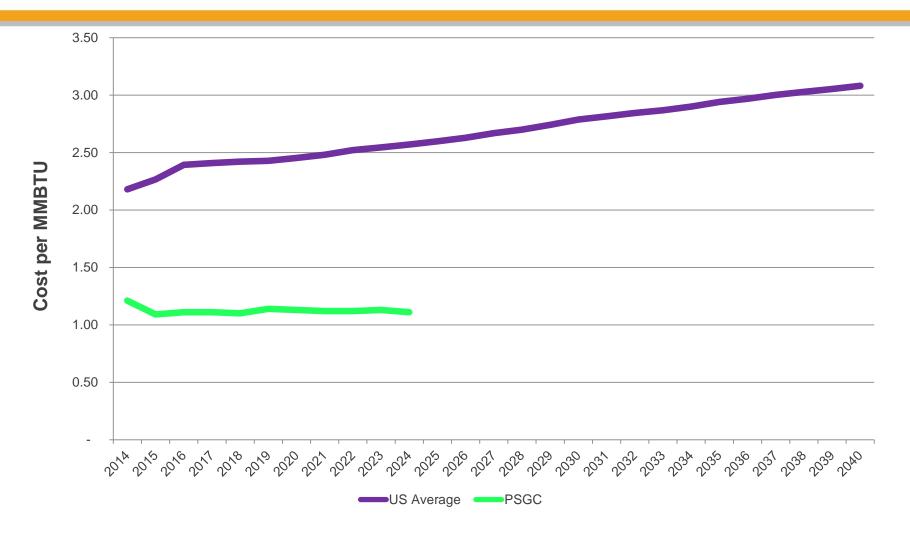




Source: 2013 EIA (Energy Information Administration) Annual Energy Outlook

## **Average Annual Mine Mouth Coal Prices**





Source: 2013 EIA (Energy Information Administration) Annual Energy Outlook

## Prairie State Fuel Advantage vs. 2013 Industry Actuals



Coal Source*	BTUs	\$ Per MMBtu
2015 PSGC**	8,400	\$1.09
Powder River Basin	8,800	\$1.82
Illinois Basin	11,400	\$2.26
Northern Appalachia	12,200	\$2.34

<sup>\*</sup> Plant average delivered cost and BTU's

<sup>\*\*</sup> Excludes debt service and coal reserve costs

# 2015 – 2024 Generation & Maintenance Strategy

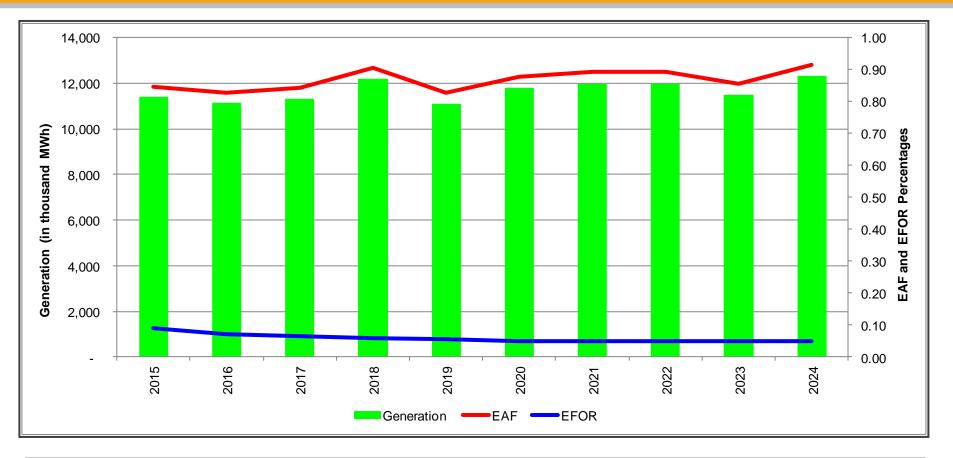


2015								
Draft Date	7/9/2014	8/13/2014						
EAF	81.9%	84.7%						
EFOR	8.0%	8.9%						
NCF	77.8%	80.5%						
Net MWh (M MWh)	11.0	11.4						

2015 – 2024 Average								
Draft Date	7/9/2014	8/13/2014						
EAF	86.2%	86.6%						
EFOR	5.8%	5.9%						
NCF	81.9%	82.2%						
Net MWh (M MWh)	11.6	11.6						

## 10 Year Budget - Reliability Profile

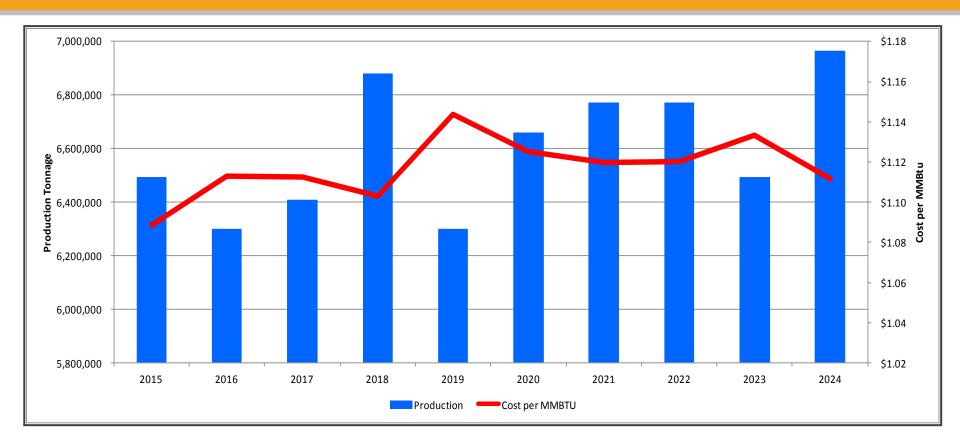




Plant Operations	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Generation	11,390	11,130	11,325	12,184	11,118	11,804	11,982	11,980	11,511	12,313
EAF	84.74%	82.81%	84.25%	90.66%	82.73%	87.84%	89.14%	89.14%	85.63%	91.62%
EFOR	8.90%	7.00%	6.53%	5.99%	5.48%	5.00%	5.00%	5.00%	5.00%	5.00%

## 10 Year Budget - Mine Ops Cost Profile





	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Production	6,493,571	6,299,319	6,410,320	6,882,075	6,299,319	6,660,073	6,771,074	6,771,074	6,493,571	6,965,326
Cost per MMBTU	\$ 1.09	\$ 1.11	\$ 1.11	\$ 1.10	\$ 1.14	\$ 1.13	\$ 1.12	\$ 1.12	\$ 1.13	\$ 1.11

## Reliable Public Power Provider



