

Monitoring Report SD-2: Rates Finance Committee June 9, 2020

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SD-2: Rates

Strategic Directive

The Board of Directors shall establish a rate target of no general rate increases for a 5-year period starting January 1, 2017 and ending December 31, 2021, and a directional rate target of 20% below the West North Central Regional average published rates on a system average basis.

In implementing this rate target, OPPD shall adhere to these principles:

- Maintain fair, reasonable, and non-discriminatory rates as stated in Nebraska Revised Statute 70-655;
- Equitably assign costs across and within all customer classes;
- Monitor affordability indicators;
- Pursue rate process and structure changes to reflect the cost of energy when it is used;
- Offer flexibility and options; and
- Be simple and easy to understand.

SD-2: Rates

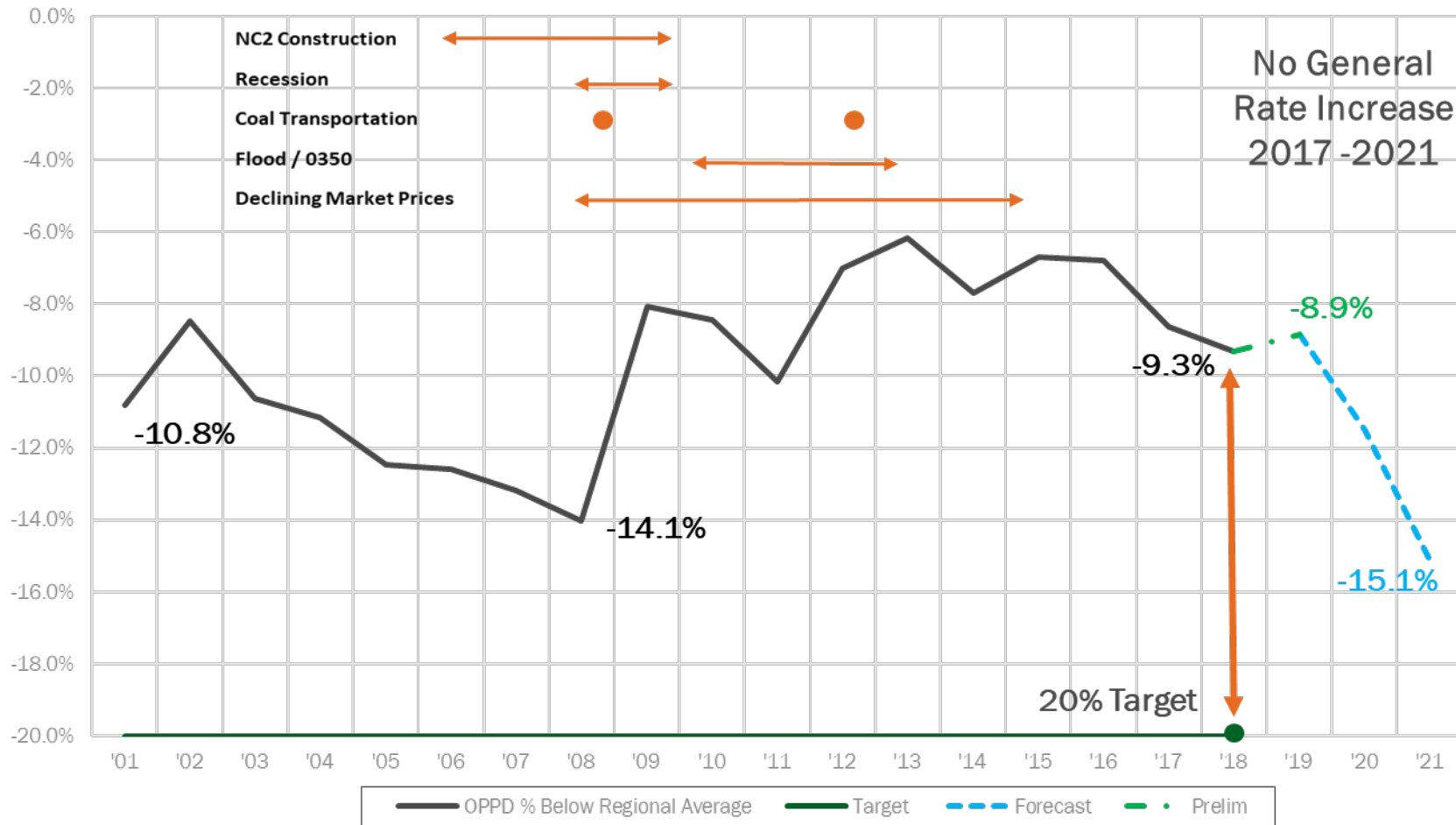
No General Rate Increase and Directional Rate Target

- **No general rate increase for a 5-year period starting January 1, 2017 and ending December 31, 2021**
 - *OPPD will work intentionally to prioritize the right work streams in 2021 to keep the right organizational priorities moving while honoring the no general rate increase.*
- **Directional goal of 20% below the West North Central (WNC) Region average published rates**
 - *The no general rate increase is expected to move OPPD towards the directional goal over time.*
- **Comparison against the WNC Region:**
 - *OPPD continues to measure against the states included in the Energy Information Administration's (EIA) WNC Region including North Dakota, South Dakota, Minnesota, Iowa, Missouri, Kansas, Nebraska.*

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Directional Rate Target

OPPD Average Retail Rate Compared to Regional Average (2001-2018)



Preliminary 2019:
 -8.9% Below Regional Average
 EIA Release: Oct 2020

Short-Term Forecast:
 EIA's Short-Term Energy Outlook (April 2020 Release) projects retail rates for WNC region to increase for 2020 (3.0%) and 2021 (4.3%).

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Directional Rate Target

- EIA calculates the average price (cents/kWh) utilizing consistent methodology to ensure comparability across states and utilities.
 - Average price per kWh calculation:
 - Utilizes the Annual Electric Power Industry Report (Form EIA-861)
 - Revenue by Sector – Residential, Commercial, Industrial, and Transportation.
 - Energy Sales by sector.
 - The formula is simply: $\frac{\text{Revenue}}{\text{Energy Sales}} = \text{average price.}$
 - Average price will not perfectly reflect the structure of rates
 - This methodology ensures comparability regardless of source of revenue – customer, demand, energy charge, etc.

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Load Factor

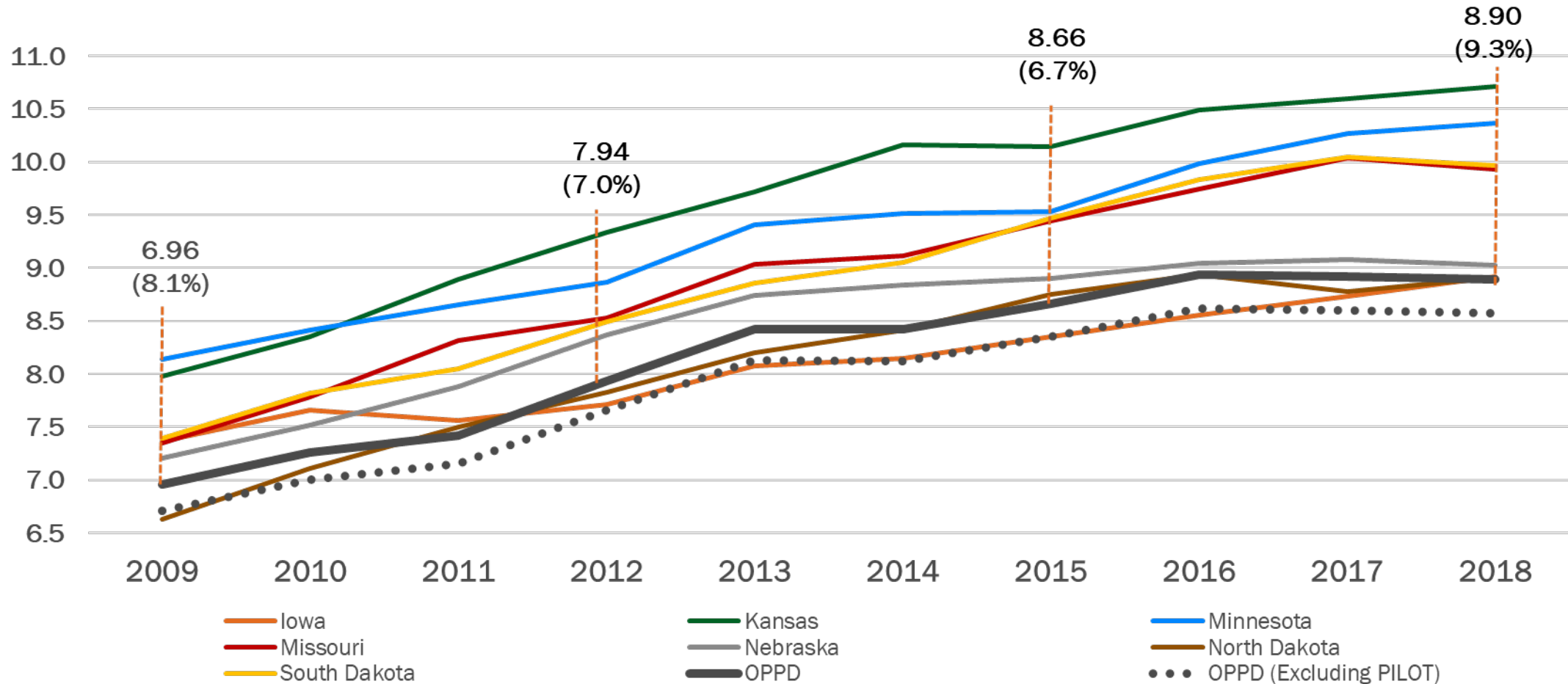
- Load factors, a measure of system utilization, ranges widely by customer class.
- High load factors indicate high utilization of system capacity:
 - *Customers with a higher load factor utilize the system more efficiently*
- High load factor customers often and appropriately translate into a lower average cost per kWh while still bearing an equitable amounts of system cost.

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Directional Rate Target

WNC Average Rates All Rate Classes (¢/kWh)

Data from EIA - Electric Sales, Revenue, and Average Price (Tables T4 and T10)

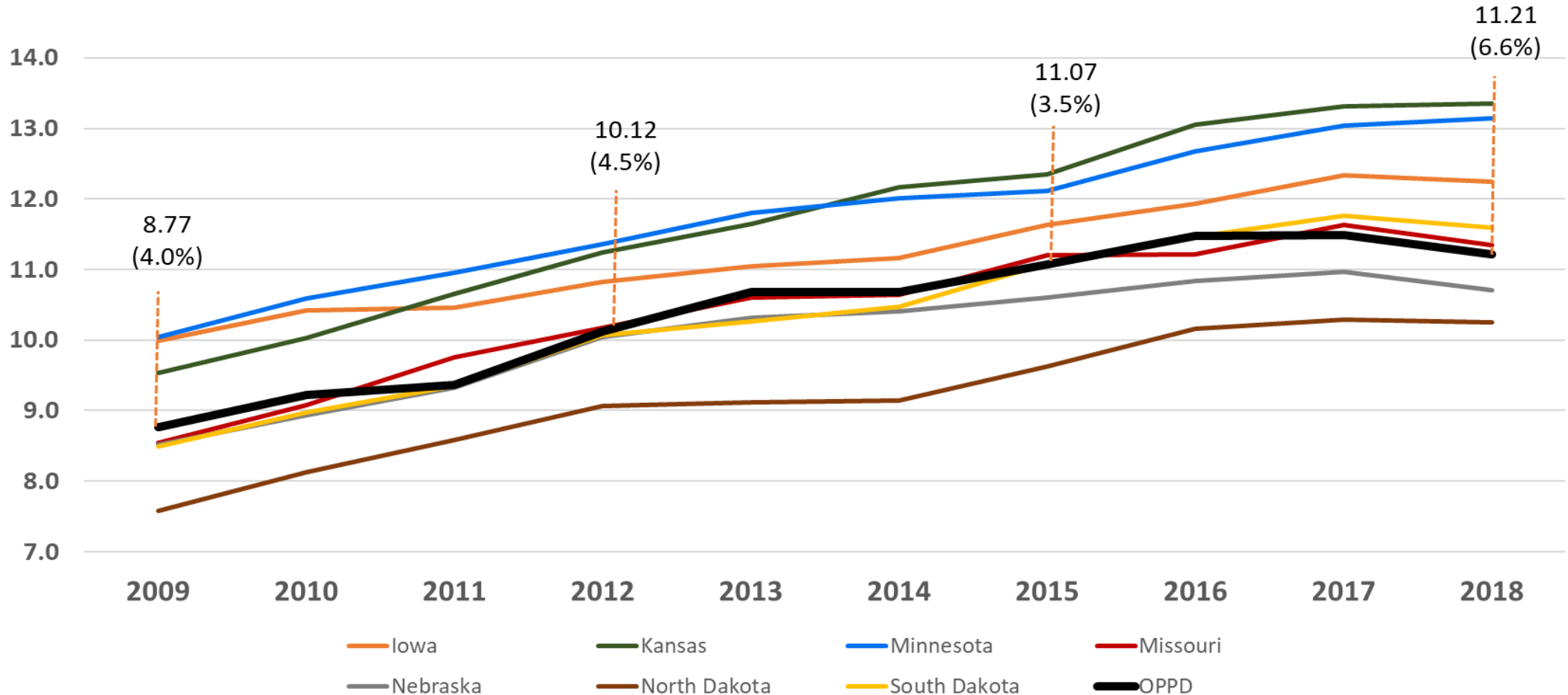


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Directional Rate Target

WNC Average Residential Rates (¢/kWh)

Data from EIA- Electric Sales, Revenue, and Average Price (Tables T4 and T6)

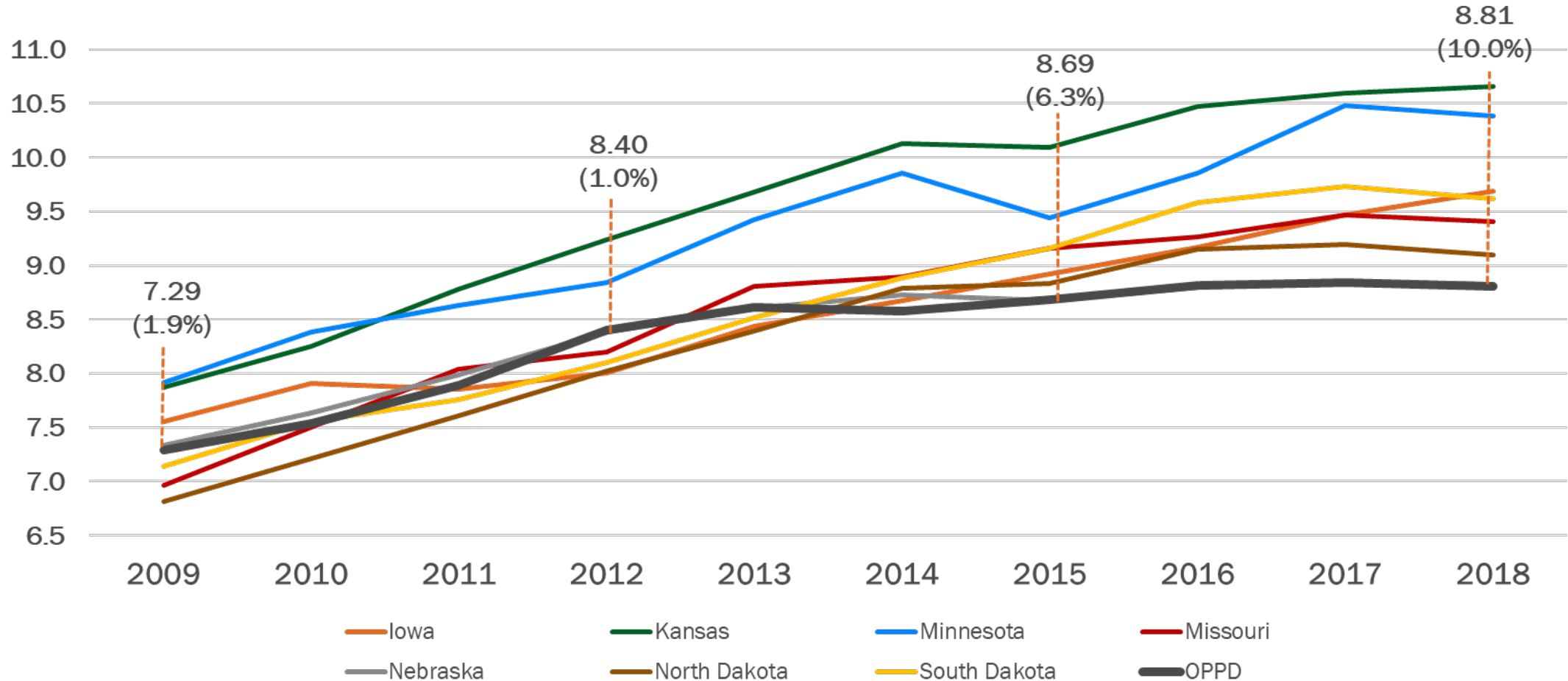


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Directional Rate Target

WNC Average Commercial Rates (¢/kWh)

Data from EIA - Electric Sales, Revenue, and Average Price (Tables T4 and T7)

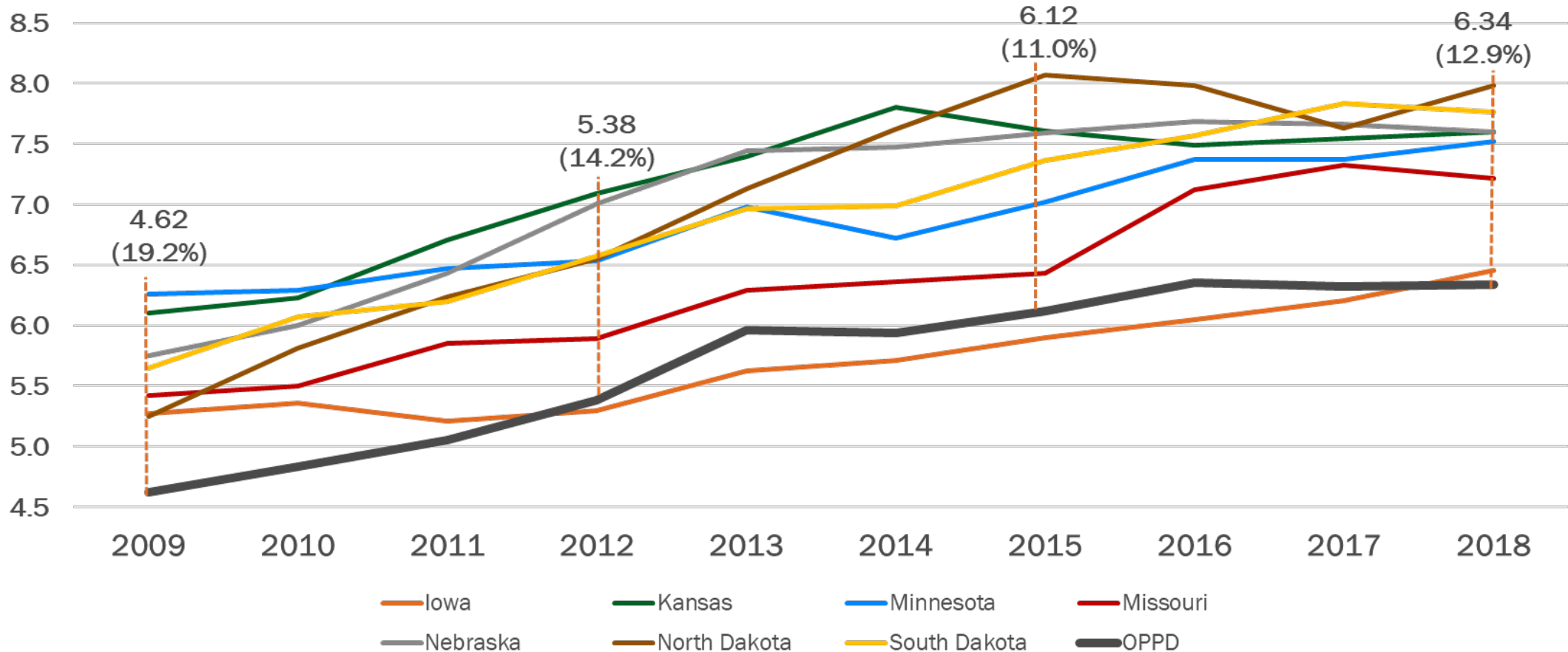


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Directional Rate Target

WNC Average Industrial Rates (¢/kWh)

Data from EIA - Electric Sales, Revenue, and Average Price (Tables T4 and T8)



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Fair, Reasonable, and Non-Discriminatory

- **Maintain fair, reasonable and non-discriminatory rates as stated in Nebraska Revised Statute 70-655**
 - *An industry standard Cost of Service Study is completed to align rates with cost drivers.*
 - *In 2019, the District's Cost of Service Study underwent a significant modernization to increase the speed of the annual study as well as facilitate more timely creation of new rate offerings.*
 - *Costs are allocated across classes according to their unique energy usage characteristics.*
 - *The rate setting process is reviewed by an outside consultant (The Brattle Group).*

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Cost Assignment Across and Within Classes

- **Equitably assign costs across and within all customer classes.**
 - *Equitable assignment of costs within rate classes is dependent on rate structure, metering technology, and customer homogeneity.*
 - *The service charge increase for small commercial and residential classes is a step toward more equitably assigning costs within those classes.*

	Industrial	Commercial	Residential
Customer Costs*	●	●	●
Energy Costs	●	●	●
Demand Costs*	●	Partial	Partial

**Service charge recovers a portion of the customer and distribution related costs for small commercial and residential rate classes*

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Monitor Affordability Indicators

- **Monitor affordability indicators**

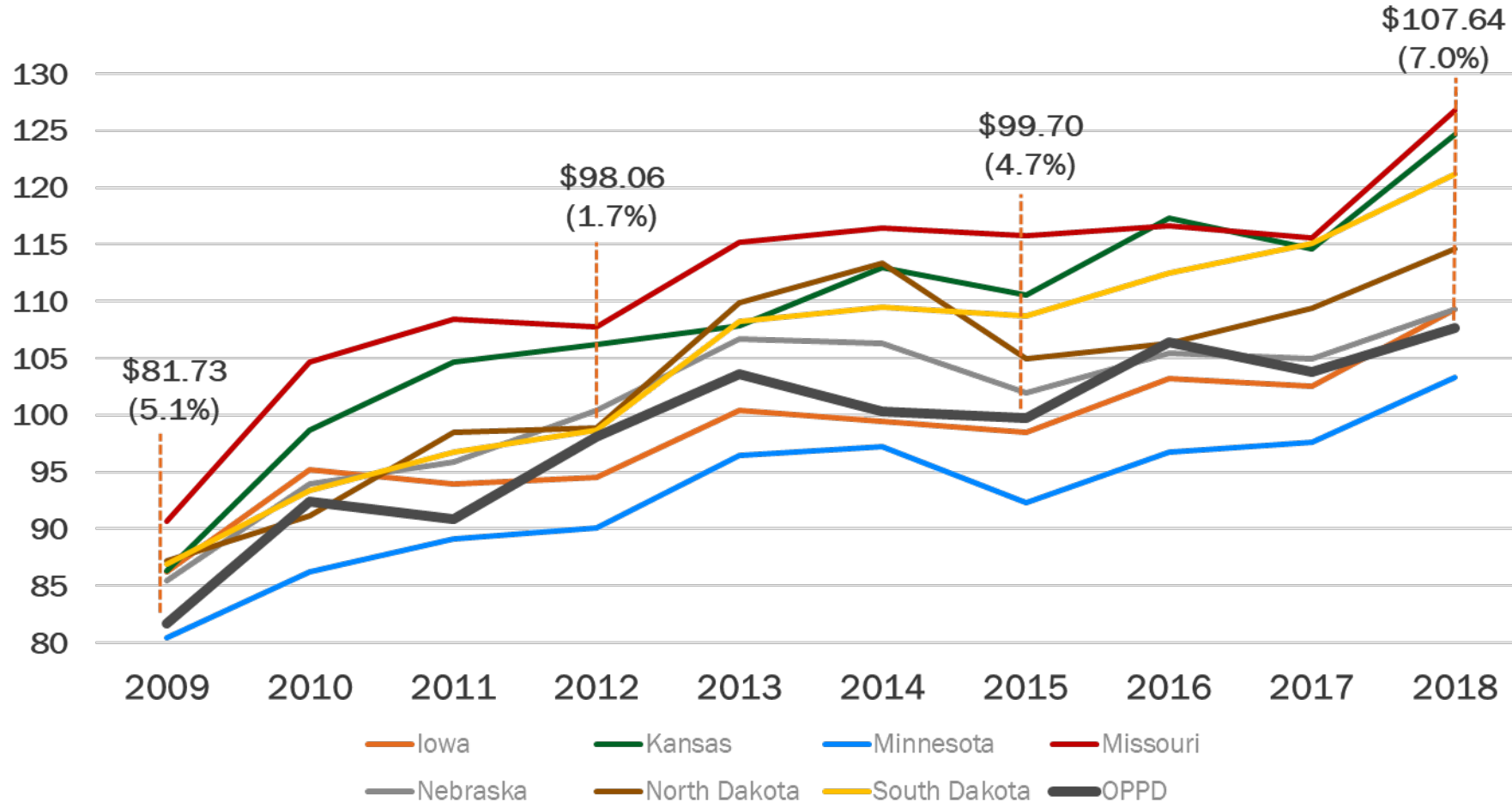
- *OPPD accesses a number of publicly available data points to monitor the overall affordability of its retail electric sales relative to income*
- *Data sources include the EIA’s “Electric Sales, Revenue, and Average Price” publications as well as “Median Household Income Data” from US Census publications*
- *Weather impacts, via Heating Degree Days (HDD) and Cooling Degree Days (CDD) are utilized to more accurately interpret and understand the affordability findings:*
 - *Define HDD: A measurement of how cold the temperature is relative to 65°F. For example, a day with a mean temperature of 40°F has 25 HDD. Two days with a mean temperature of 40°F would have a total of 50 HDD for the two-day period.*
 - *Define CDD: A measurement of how hot the temperature is relative to 65°F. A day with a mean temperature of 80°F has 15 CDD. If the next day has a mean temperature of 83°F, it has 18 CDD. The total CDD for the two days is 33 CDD.*

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Monitor Affordability Indicators

WNC Average Residential Bill (\$/Month)

Data from EIA - Electric Sales, Revenue, and Average Price (Tables T5a and T6)



Percent Increase in Degree Days (Year Over Year)

	WNC	OPPD
Heating Degree Days (HDD)	16%	20%
Cooling Degree Days (CDD)	25%	16%

2018 Weather

The WNC region had the largest number of HDD in 2018 of any region.

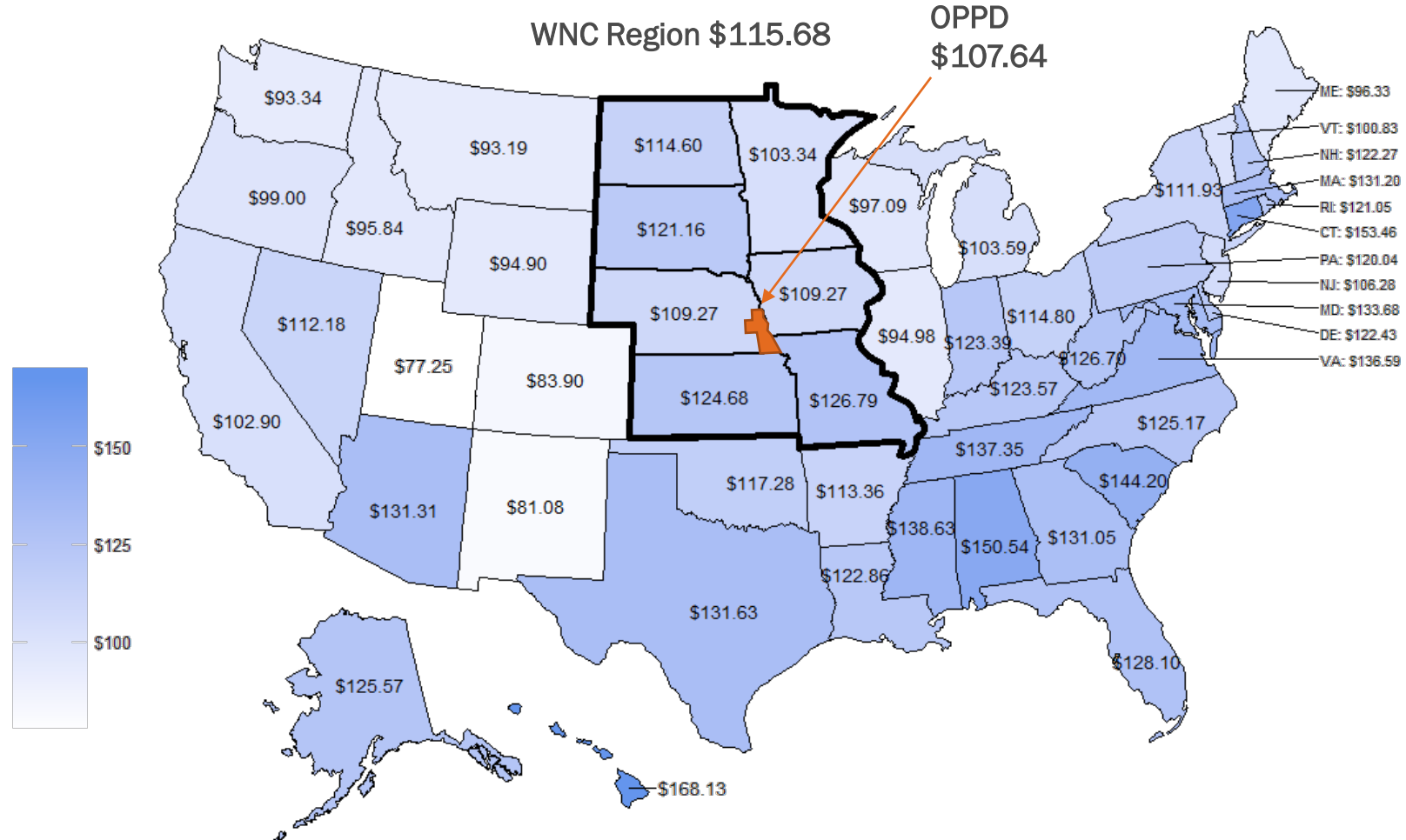
2018 had the second most CDD for the WNC region since 1990.

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Monitor Affordability Indicators

WNC Average Residential Bill

Data from EIA - Electric Sales, Revenue, and Average Price (Tables T5a and T6)

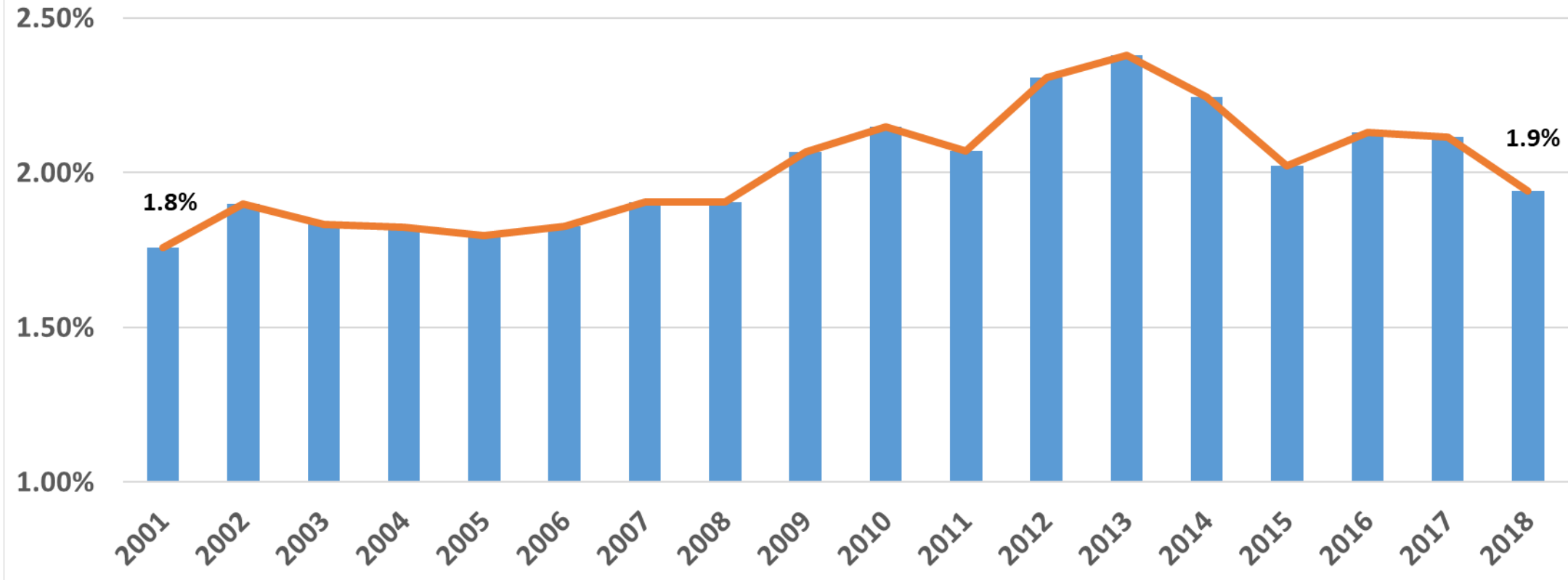


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Monitor Affordability Indicators

Nebraska Electricity Bill as a Percent of Income

*Median Household Income Data for US Census Table H-8 2018,
Electricity Data from EIA Annual Electric Utility Data EIA- 861,
All values in 2018 CPI-U-RS adjusted dollars



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Monitor Affordability Indicators

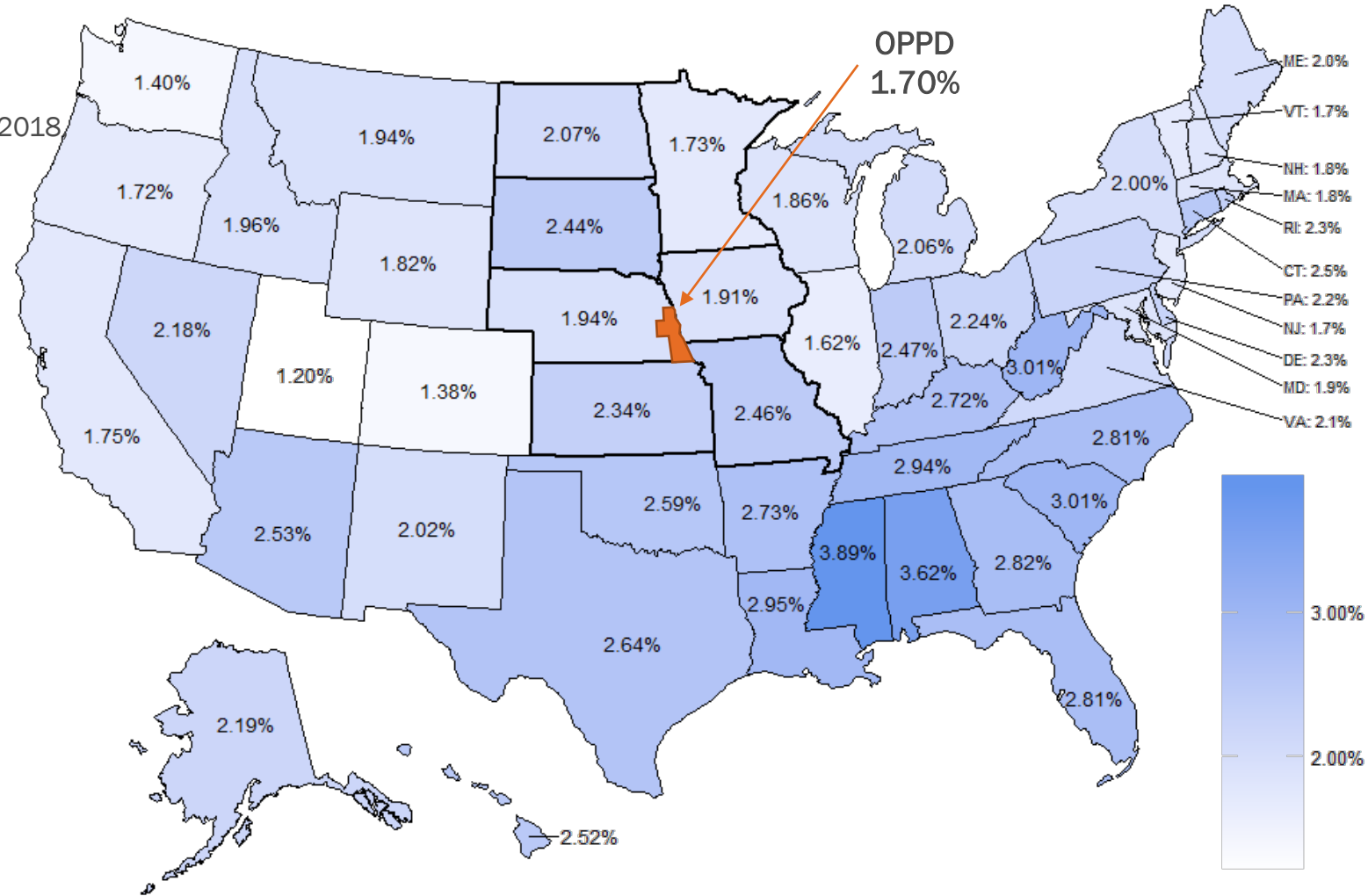
State's Residential Electricity Burden

State Median Household Income Data from US Census Table H-8 2018

Electricity Data from EIA Annual Electric Utility Data EIA-861

Note: The US Census does not provide median household income for the OPPD territory.

A “synthetic” median household income for the OPPD territory was derived from the US Census’ SAIFE data series, which provides median household data at the county level. The median household income from the counties located within OPPD territory were weighted by population. The sum of the weighted medians were then scaled to account for differences between Table H-8’s median household income and SAIFE’s estimate.

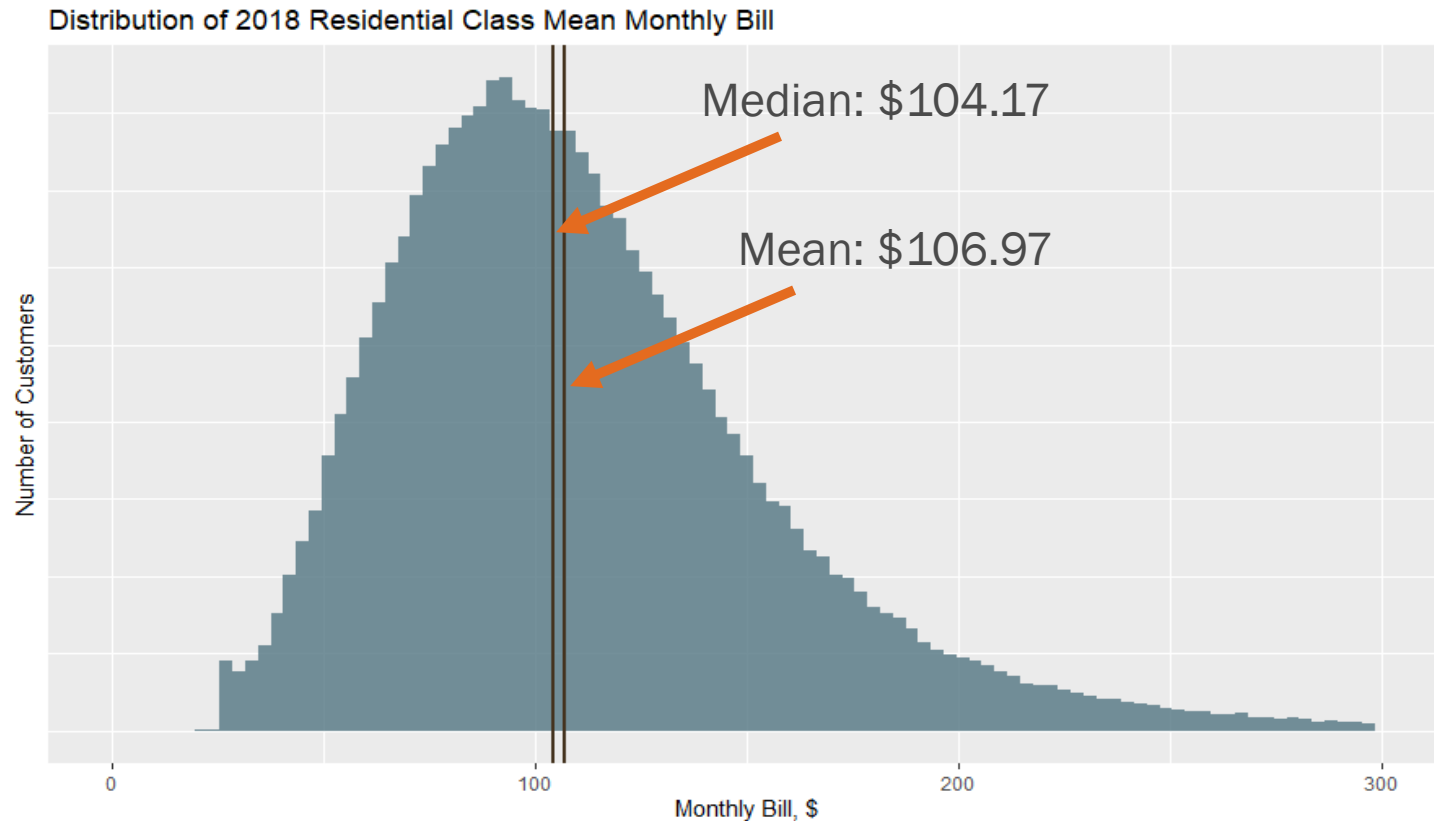


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Monitor Affordability Indicators

Distribution of Residential Bill

- For customers with at least 12 month of billing history, 2018 data.
- Aggregate customers usage if affected by 'long tail' of some high users.
- Approximately 53% of OPPD customers pay less than the mean customer bill.



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Cost of Energy When Used

- Pursue rate process and structure changes to reflect the cost of energy when it is used:
 - *Currently, time of use rates are available through Rider Schedule No. 469 - General Service- Time of Use.*
 - *Fuel and Purchase Power is calculated based on seasonal energy prices reflecting the cost of the energy when it is expected to be used.*
 - *OPPD continues to monitor for potential technology that would allow an increase in time of use offerings.*

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Flexibility and Options

- Offer flexibility and options

- *The following options exist to increase flexibility and options for interested and eligible customers.*
- *Pricing & Rates continues to collaborate with Product Development & Marketing to bring new offerings to market*

Residential	General Service	
Heat Pump	261M	Standby Service*
Private Outdoor Lighting	Street Lights	Curtable*
Cogeneration and Small Power*	Cogeneration and Small Power*	Time of Use*
Surge Guard*	Surge Guard*	Green Sponsorship*
Net Metering*	Net Metering*	Supplemental Capacity*
Community Solar*	Community Solar*	Primary Service Discount*

* Denotes Rider

SD-2: Rates

Simple and Easy to Understand

- Be simple and easy to understand
 - In 2019/2020 OPPD updated the Services Regulations and Schedules to increase the ease of understanding by simplifying the language and layout.
 - The Service Regulations and Schedules builds a firm foundation for more strategic rate design work in the future
 - In collaboration with Customer Experience team, Quick Start Guides were created and are being deployed to better inform customers regarding Residential and Small Commercial Rate Schedules to increase their ability to make informed choices.

RESIDENTIAL SERVICE - RATE 110

Summer (June 1 - Sept. 30)

Service Charge: \$30/month
Energy Charge:



Non-Summer (Oct. 1 - May 31)

Service Charge: \$30/month
Energy Charge:

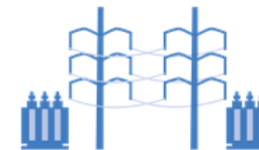


HOW ARE RATES SET?

Each rate schedule is determined by gathering all costs of providing electric services for OPPD's customer-owners. Costs are categorized into generation, transmission, distribution, and workforce. Next, these categorized costs are divided into billing components and are included in each of the different rate schedules.



Generation
produces electricity to meet instantaneous energy demands



Transmission
transmits electricity long distances efficiently and creates a reliable electric network



Distribution
connects each customer to the electric system according to their demands



Workforce
provides administrative, planning, and customer support services

Recommendation

- The Finance Committee has reviewed and accepted this Monitoring Report for SD-2 and recommends that the Board find OPPD to be sufficiently in compliance with Board Policy SD-2.