

Minutes of the
EMPOWER NORTH DAKOTA COMMISSION

April 12, 2016
ND Heritage Center
612 E Boulevard
Bismarck, ND

Members present:

Al Anderson, Mark Nisbet, Randy Schneider,
Jay Skabo, John Weeda, Jason Bohrer, Dale
Niezwaag, Ron Day, Ron Ness

Ex Officio Members:

Sandi Tabor, Mark Bring, Julie Voeck, Margaret
Hodnik

Others present:

Justin Dever, Department of Commerce
Mike Fladeland, Department of Commerce
Sherri Frieze, Department of Commerce
Andrea Pfennig, Department of Commerce
Emily Cash, BSC
Dale Heglund, UGPTI
Tim Horner, UGPTI
Denver Tolliver, UGPTI
Terry O'Clair, Dept. of Health
Jolene Kline, NDHFA
Terry Sando, ND Water Commission
Steve McNally, Hess Corp.
Deana Wiese, NDEC
Shane Goettle, Odney Advertising
Jean Schafter, Basin Electric
Wade Boeshans, Allele/Minnesota Power
Tyler Hamman, LEC/NDTA
Levi Andrist – GA Group
Justin Kringstad, NDPA
Mark Scheid, Ulteig Engineers, Inc.
Jeff Heinemann, Ulteig Engineers, Inc.
Karlene Fine, Industrial Commission

CALL TO ORDER/WELCOME

Chairman Anderson called the meeting to
order at 10:00 a.m. and welcomed Commission
members and guests.

APPROVAL OF MINUTES

**A motion was made by Schneider and
seconded by Day to approve the minutes of
March 1st. Motion carried unanimously.**

**Denver Tolliver – Upper Great Plains
Transportation Institute**

Tolliver talked about critical issues and goals
facing the ND road system. They include:
1) The preservation and improvement of roads and
bridges, 2) improving transportation efficiency,
3) creating better transportation economics with
more rail and pipeline capacity, and 4)
transportation safety of moving hazardous
materials.

Tolliver talked about past and on-going studies,
data collection systems, roadway asset
management, and budget initiatives.

[Appendix A](#)

**Terry O'Clair
ND Dept. of Health – Division of Air Quality**

O'Clair talked about the Clean Power Plan
111d, Waters of the US (WOTUS) and the
proposed Davis Refinery.

[Appendix B](#)

**Jolene Kline
ND Housing Finance Agency**

Kline gave background information about the
ND Housing Finance Agency (NDHFA), the future
of the Housing Incentive Fund (HIF), and the
benefits of the agency and housing programs.

[Appendix C](#)

**Todd Sando
State Water Commission**

Sando talked about the State Water
Commission, temporary permits, consumptive
water use, project funding for 2015-2017 Biennium
and federal policy challenges.

[Appendix D](#)

Subcommittee Updates

Subcommittee chairs presented key action items to their respective industry.

Research & Development

Wade Boeshans and John Weeda

- Support funding for basic research and advanced technology through ND research institutions.
- Support ND Health Department with the resources they need for maintaining state primacy.
- Support the preservation of Carbon Dioxide.

Regulatory

Jason Bohrer

- Support continued legislation for the electric generating sales tax exemption for all types of energy generation.
- Support incentives for carbon dioxide sequestration and manmade carbon dioxide emissions.

Infrastructure

Ron Ness

- Support funding mechanisms that allow communities leverage and financial support for critical community infrastructure.
- Support funding for Ombudsman Program.
- Support a policy statement for jurisdictional authority-statewide for siting, permitting and zoning.
- Policy statement to supporting existing state regulatory authorities to reduce multiple jurisdictional authorities and conflicting regulations that impede energy infrastructure development.

Emily Cash and Erik Holland 4th & 8th Grade Energy Curriculum Supplemental Resources

Cash and Holland talked about the new online ND Energy Curriculum for teachers, parents and the public.

Through a partnership with ND Studies and the EmPower ND Commission and funding provided by the ND Industrial Commission, the Oil and Gas Division, the Lignite Energy Research Council, as well as matching donations, grant awards, and in-kind resources two-week lesson plans were developed for Level One (4th grade) and Level Two (8th grade).

The digital energy curriculum includes videos, and activity resources to educate students about energy resources in ND.

<http://ndstudies.gov/>

Public Comment

No comments were given

FUTURE MEETINGS

The next meeting will be held in conjunction with the ED&T Committee, May 11th, at the Energy & Environmental Research Center in Grand Forks.

ADJOURNMENT

Motion was made by Skabo and seconded by Day to adjourn the meeting. Meeting was adjourned at 4:15 pm.

Al Anderson Chairman	Date
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Sherri Frieze Recording Secretary	Date
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NDSU Upper Great Plains Transportation Institute

Presentation to
the EmPower North Dakota Committee
Denver Tolliver, Director

Overview

- Critical Issues facing North Dakota
- Critical research and technical assistance needs
- Overview of UGPTI transportation studies (past and ongoing)
- Future studies and analysis tools
- UGPTI 2017 budget initiatives

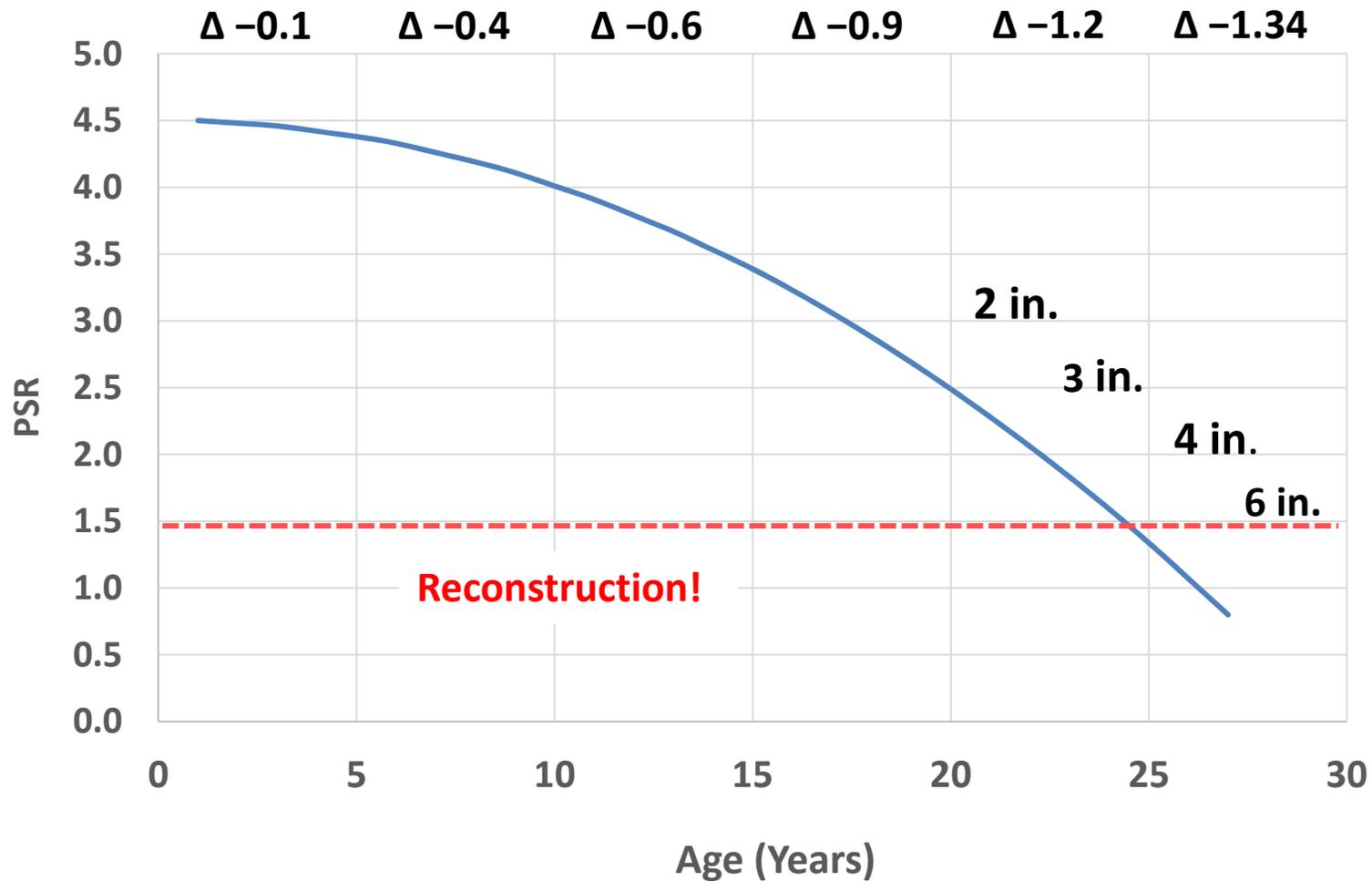
Critical Issues and Goals

- Preserve and improve road and bridge system
- Improve transportation efficiency/reduce costs
- Critical need: export goods from the State
 - Rail and pipeline capacity
 - Truck economics
- Transportation safety
 - Rail movements of oil and ethanol
 - Motor carrier hazmat movements
 - Operational and human issues

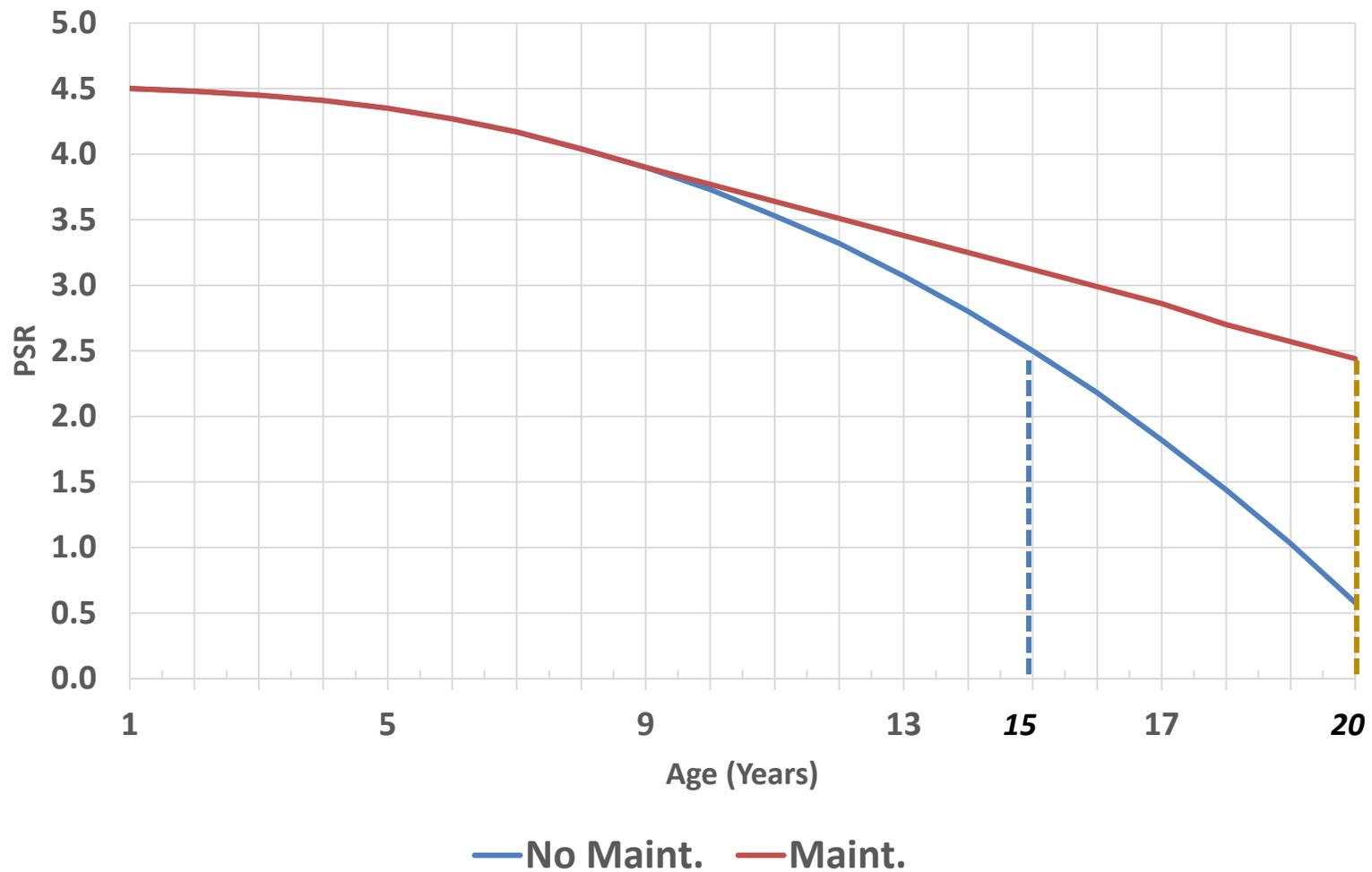
Preserve/Improve Road System

- Goal: cost-effective improvements that enhance freight mobility, reduce logistical costs, and promote safety
- Reconstruction
- Rehabilitation
- Capacity enhancements
- Preservation/maintenance

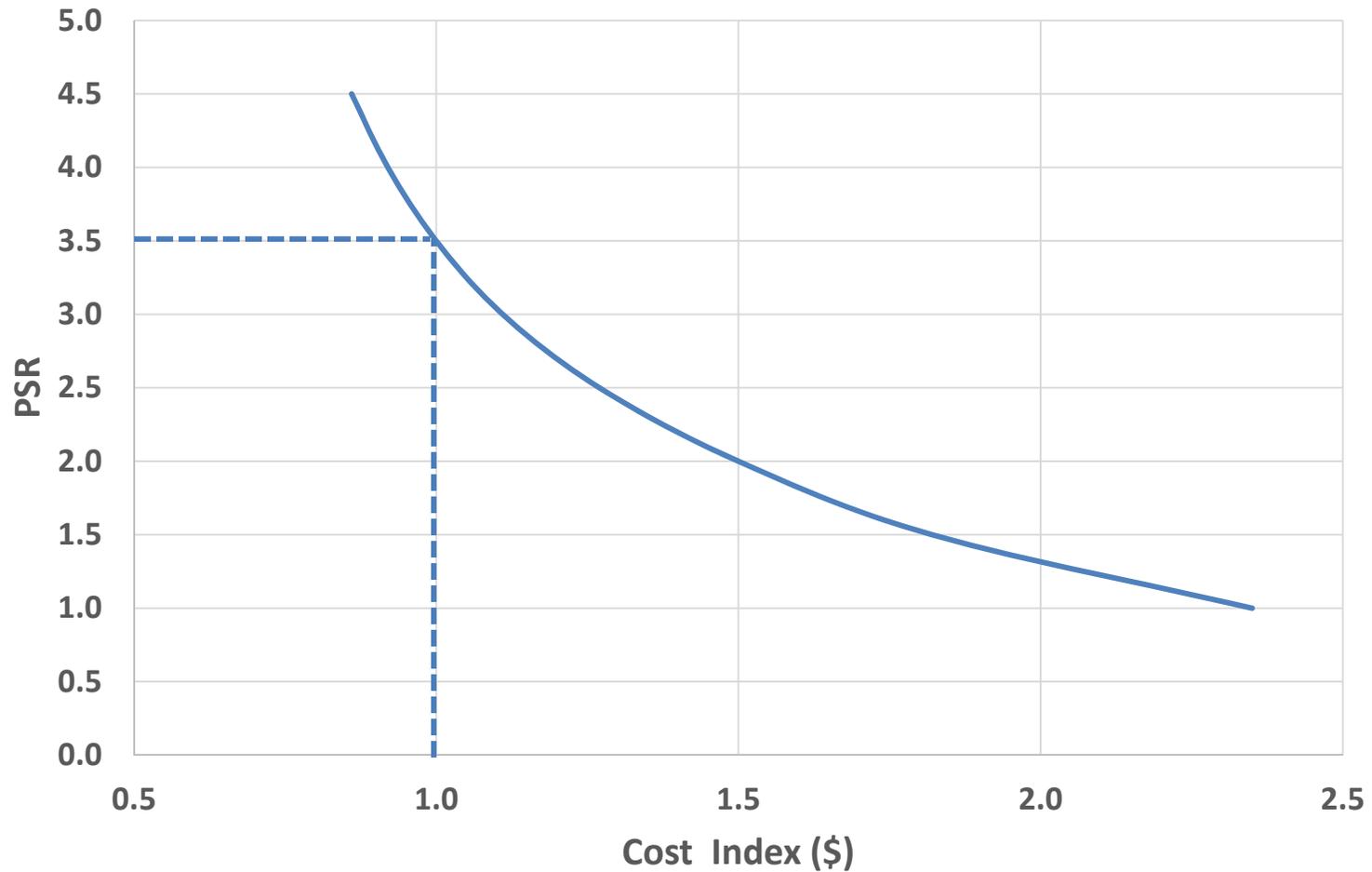
Pavement Deterioration and Overlay Thickness



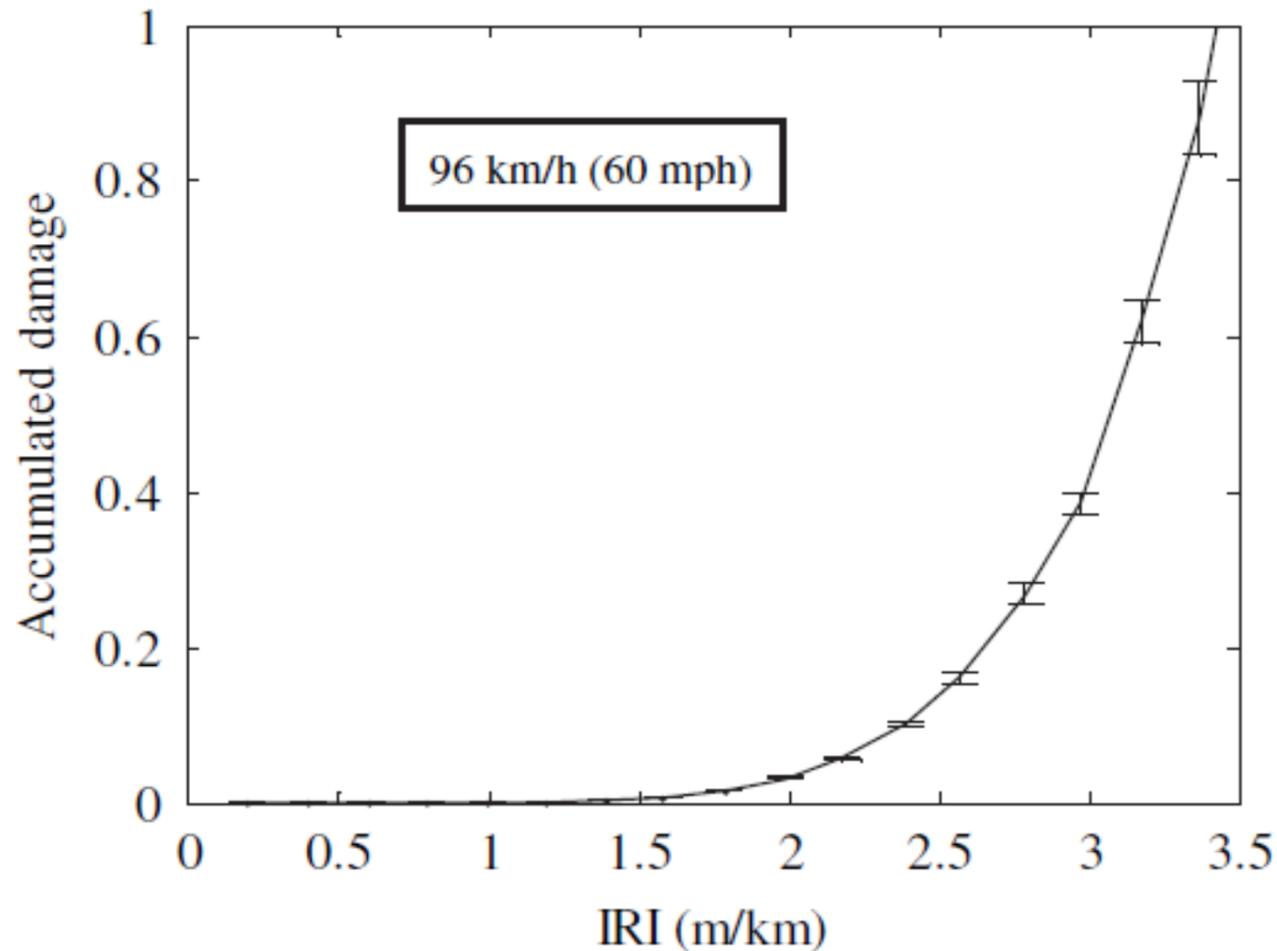
Effects of Preservation Maintenance



Effects of Pavement Condition on Truck Cost



Effects of Roughness on Truck Suspension After 250,000 Miles



NCHRP REPORT 720 Fig. 5-9; 1 m/km = 63.4 in./mi

Optimization of Roadway Investments

- Select best improvement
- Best timing for improvement
- Cost-effective preservation/maintenance treatments
- Budget constraints
- Roadway asset management system
- Life cycle costs: (1) road investment, (2) user costs
- Impact on economic development

Railroad Issues

- Freight costs and service
 - Shuttle train efficiencies—e.g. for a 1,000-mile trip
 - 35%-40% efficiency gain vs. small multicar shipments
 - 15% to 20% the cost of trucking
 - Road service to shuttle facilities and plants
 - New car design and train operating reg. for HHFT
- Line/network capacity
- Branch-line network: 30%+ grain originated
- Regional railroad track infrastructure: > 50% of miles equipped with \leq 90-lb rails
- Grade crossings

Past UGPTI Studies

- 2010 study: UGPTI estimated county township road investment needs for the 2011 session
 - Based on 21,500 new wells
- 2012 study: updated county township road investment needs for the 2013 session
 - Based on 46,000 new wells
 - Initial bridge study
- 2014 Study: updated estimates based on higher forecasts (e.g., 60,000 new wells)
- 2014 regional railroad investment needs

On-Going UGPTI Studies

- 2016 study: legislative county/township study
 - Based on 3 levels of rig usage (30, 60, 90)
- 2016 study: state highway system
- 2016 Study: Truck Harmonization Study
- 2016 Study : urban needs – 13 largest cities
- Rail plan data analysis

UGPTI Data Collection Programs

- Road substructure/strength: nondestructive testing
 - Falling Weight Deflectometer
 - Ground Penetrating Radar
- Traffic: 1,000+ locations
 - Total vehicles
 - Trucks
- Road condition
 - Pathway's instrumented van
 - Visual data—dashboard video
- Road geometry
- Goal: best rural county road database in nation

Roadway Asset Management

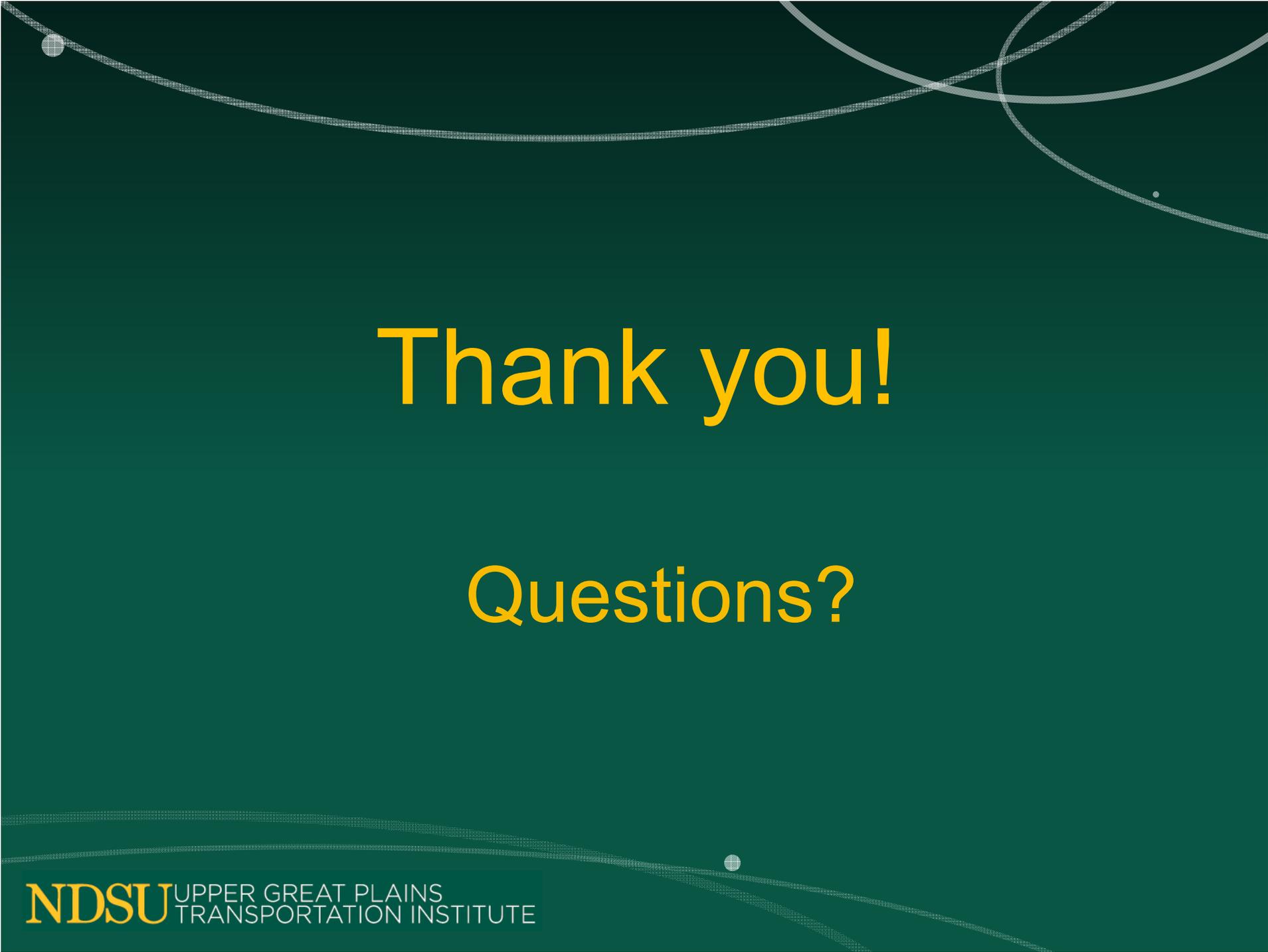
- Developing online tools for counties
- Monitor investments/system condition
- All UGPTI data available to counties online
 - Traffic, road condition, traffic forecasts
- Mapping tools: showing condition, traffic, other characteristics
- Surface selection tool
- Technical assistance: UGPTI and NDLTAP
- Common data structure for all counties in the state
- Future: decision support tools

2017 UGPTI Budget Initiatives

- Permanent funding for road/bridge studies
 - Better planning and resource use
 - Long-term efficiencies: contracting for data collection
 - Min. request for \$750k; including cities
- Rail freight and safety: \$325,000
 - Allow UGPTI to work closely with PSC and other state agencies; FRA and PHMSA
 - Freight flows, capacity, grade crossing traffic, risk assessment

2017 UGPTI Budget Initiatives (cont.)

- Motor carrier safety
 - \$250,000 to match federal grants
 - Leverage ratio: 10/2
- Critical topics
 - Causes of heavy vehicle crashes
 - Critical roles of company cultures, drivers, and vehicles
 - Risks related to the mixing of truck/car traffic
 - Benefits/costs of potential safety mitigation measures
 - Applications of advanced technologies



Thank you!

Questions?



NORTH DAKOTA DEPARTMENT *of* HEALTH

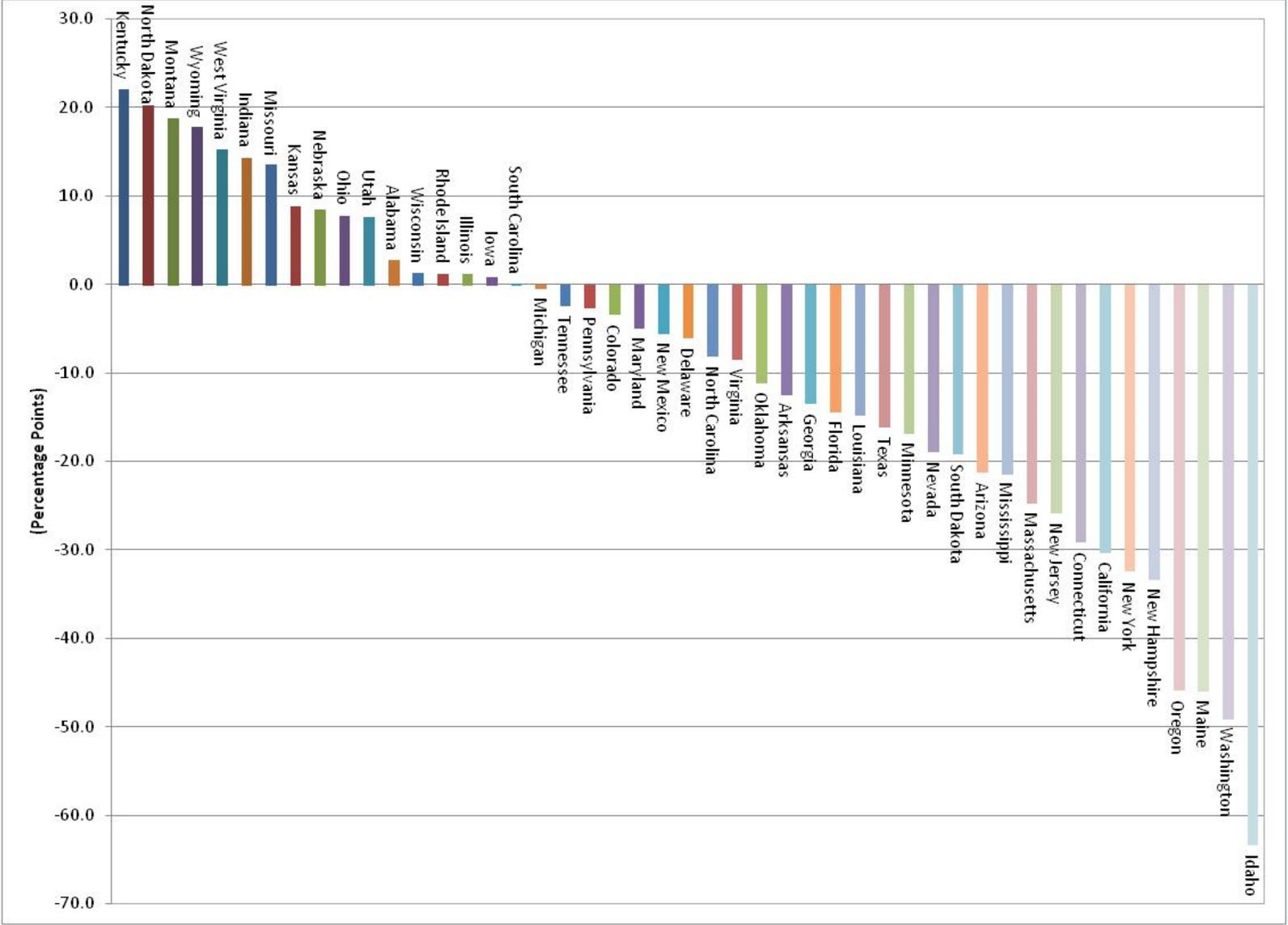
- Three Topics
 - Clean Power Plan 111(d)
 - WOTUS
 - Davis Refinery

111(d) Plan – What is it?

- A plan that must detail how reductions of carbon dioxide (CO₂) emissions from existing fossil fuel-fired power plants will be achieved.
- The plan is required by EPA's final Clean Power Plan rule
- It includes both state and federally enforceable requirements on the power plant operators to reduce CO₂ emissions.

Proposed Rule vs. Final Rule

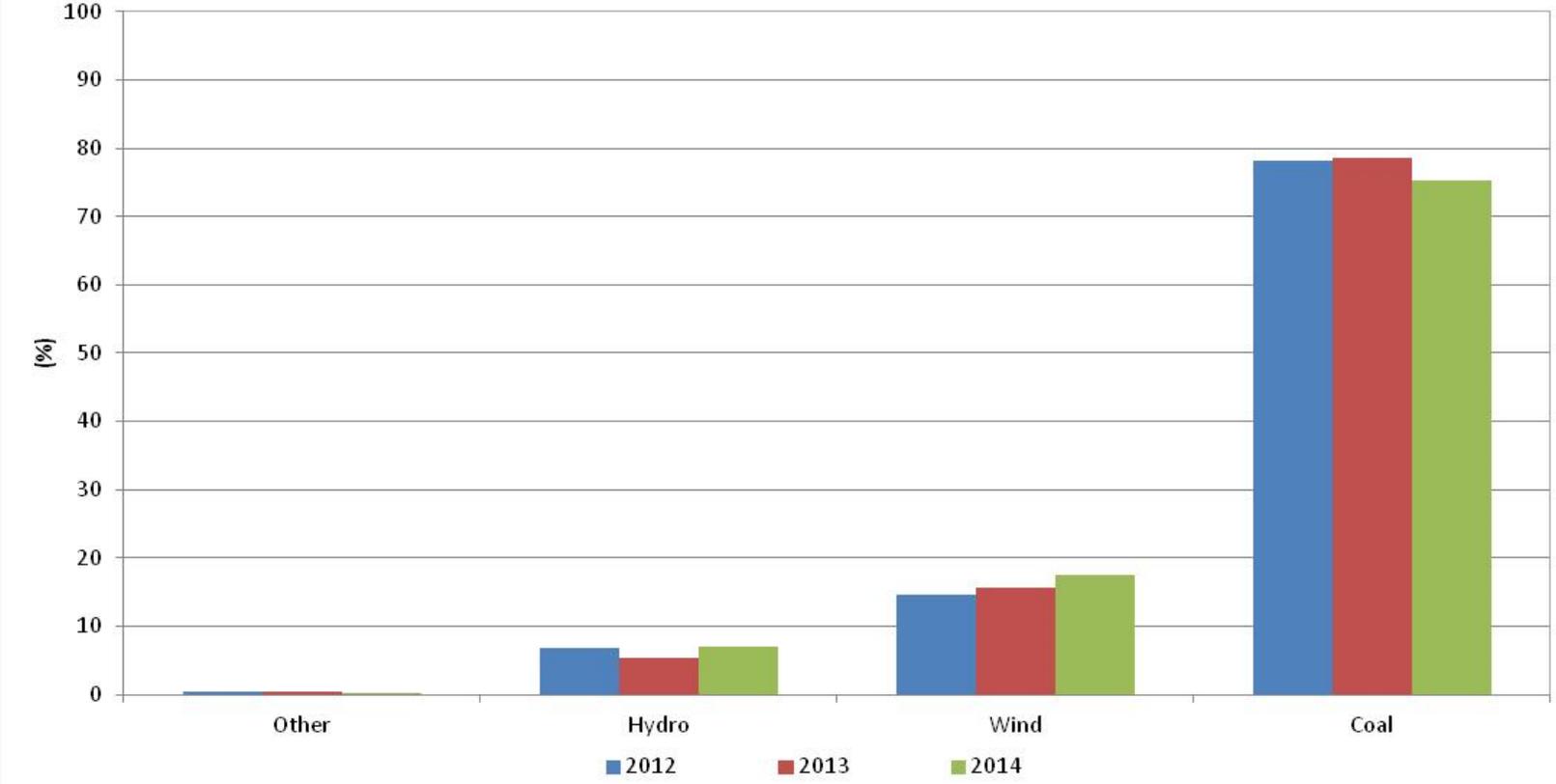
<u>ITEM</u>	<u>PROPOSAL (June 18, 2014)</u>	<u>FINAL (October 23, 2015)</u>
Start of Compliance	2020	2022
Compliance with Final Goal	2030	2030
Final Goal		
Rate	1,783 lb/MWh	1,305 lb/MWh
Mass	29,843,573 tons	20,883,232 tons
Interim Goal Period	2020-2029	2022-2029
Avg. Interim Goal		
Rate	1,817 lb/MWe-Hr	1,534 lb/MWe-Hr
Mass	30,403,643 tons	23,632,821 tons
Reduction Required		
Rate	24.7%	44.9%
Mass	10.5%	37.4%



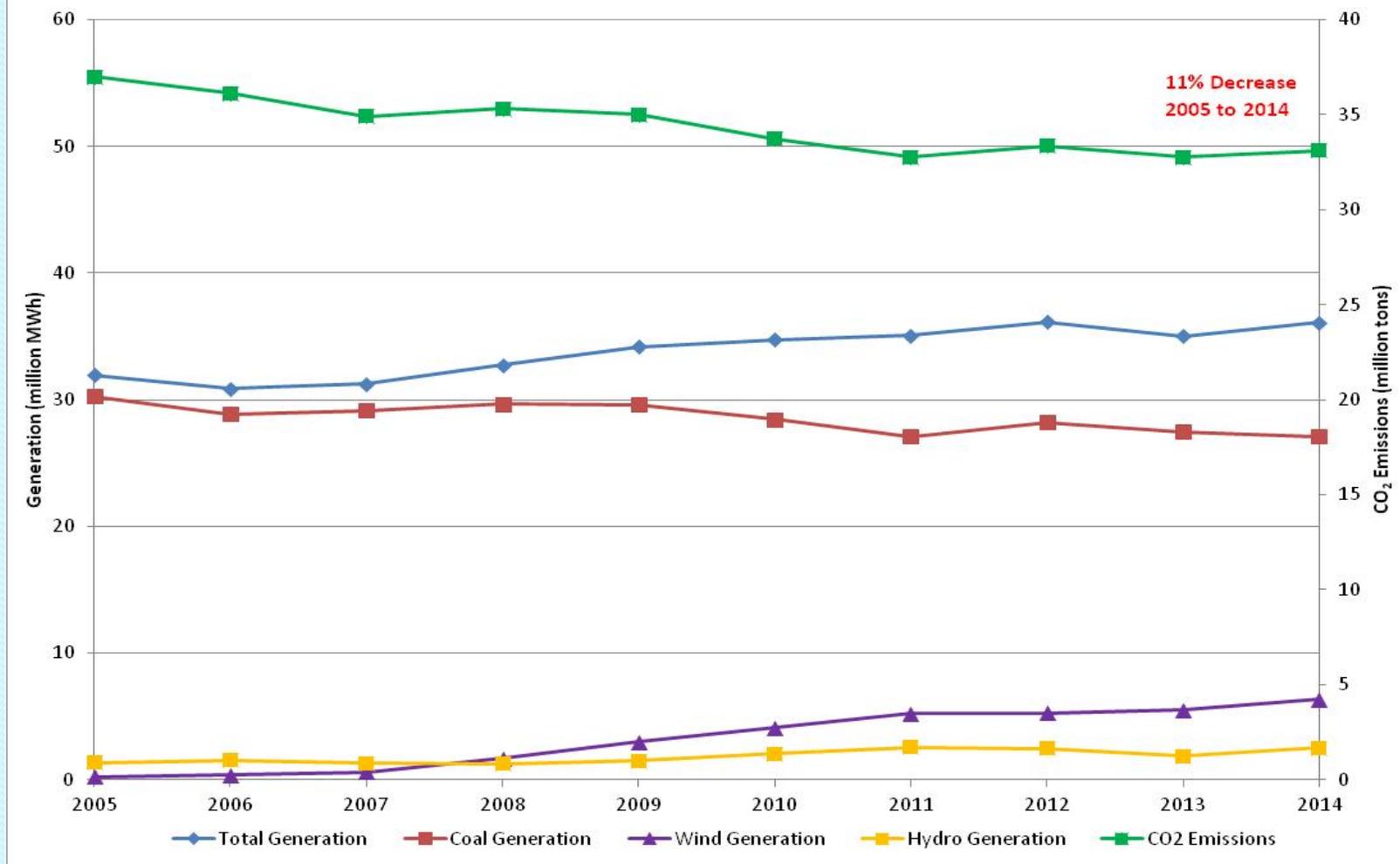
Proposed Rule vs. Final Rule

ITEM	PROPOSAL	FINAL
Nationwide Reduction from 2005 (mass)	30%	32%
Compliance	Any existing wind generation could be used for demonstrating compliance.	Only renewable energy (including wind) constructed after December 31, 2012 may be used for demonstrating compliance.
	Interstate trading allowed but up-front agreements among the states required.	Up-front agreements not required - need trading-ready rules in plan.

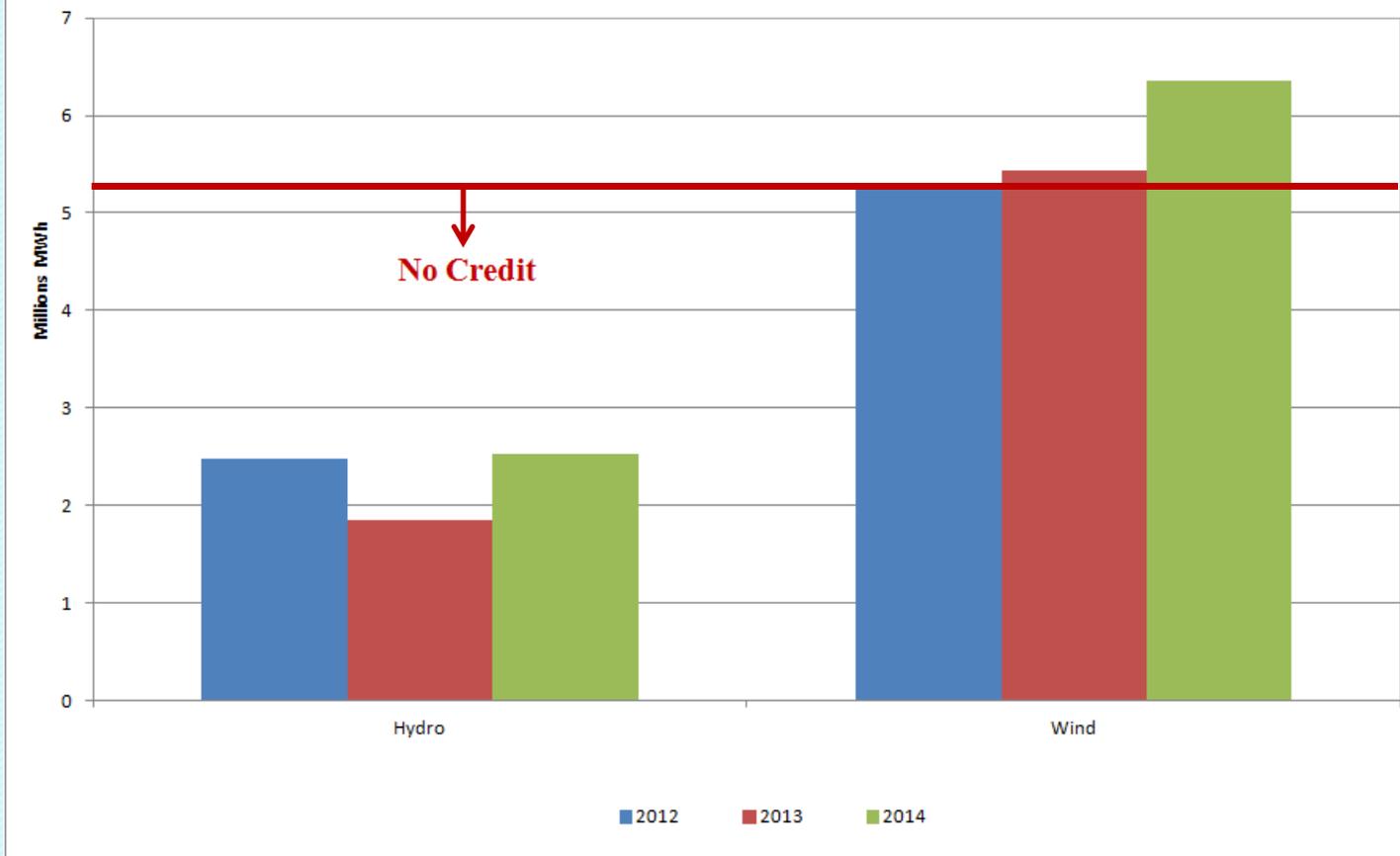
North Dakota Net Generation



North Dakota Electricity Generation



North Dakota Renewable Generation



Public Outreach Meetings

Williston – November 9 – (Attendees ~ 60)

Beulah – November 12 – (Attendees ~ 800)

Bismarck – November 16 – (Attendees ~ 600)

Fargo – November 18 – (Attendees ~ 180)

Meeting Take - Aways

1. North Dakota should submit a Plan vs EPA Mandated Plan
2. Reliability and Cost should be Considerations in Plan
3. Remaining Useful Life should be Considered
4. PSC involvement pursuant to state law should be acknowledged
5. Credit for Renewable Generation Prior to 1/1/2013 should be explored
6. Plan should allow Regional Trading
7. North Dakota should Challenge the Rule in Court
8. 2 Year Extension should be sought
9. Time Lines for Compliance are too short and not realistic
10. Maintain Operations at all Existing Plants

Pre-Publication Litigation

- Cases filed challenging both 111(b) and 111(d) rules, beginning in June 2012
- Both in the D.C. Circuit Court of Appeals and federal district courts
- Early cases clarified that:
 - Challenges must wait until after the rule is published in the Federal Register
 - Challenges must be in the form of a petition for review filed with the D.C. Circuit Court of Appeals.
 - 42 U.S.C. §7607(b)(1)

CPP/111(d) Litigation

- 10/23/15: Both 111(b) and 111(d) were published.
 - In less than 12 hours, it became the most litigated environmental rule
- 200+ attorneys
- 42 separate petitions
- Consolidated with *West Virginia v. EPA*, Case No. 15-1363 (D.C. Cir.) designated lead case

27 State Petitioners

- North Dakota
- Oklahoma
- Mississippi
- 24-State Coalition (West Virginia, Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Indiana, Kansas, Kentucky, Louisiana, Michigan, Missouri, Montana, Nebraska, New Jersey, North Carolina, Ohio, South Carolina, South Dakota, Texas, Utah, Wisconsin, and Wyoming)
- Dozens of industry petitioners, including trade associations, coal interests, and utilities.

Motions to Stay

- North Dakota
- Oklahoma
- Mississippi DEQ
- 24 States led by WV
- Basin Electric
- Chamber of Commerce and other trade groups
- Peabody Energy
- Murray Energy and coal-related groups
- Utilities and related groups

D.C. Circuit Order: January 21, 2016

- Per curiam
- Denied stay motions: “Petitioners have not met the stringent requirements for a stay pending judicial review.”
- Granted petitioning states’ request for expedited briefing schedule

SCOTUS Petitions

- 5 different groups immediately filed petitions asking the Supreme Court to stay the CPP.
- Arguments mirrored Motions to Stay.
- Chief Justice John G. Roberts is designated to handle emergency matters for the D.C. Circuit.

SCOTUS Order: February 9, 2016

ORDER IN PENDING CASE

15A793 NORTH DAKOTA V. EPA, ET AL.

The application for a stay submitted to The Chief Justice and by him referred to the Court is granted. The Environmental Protection Agency's "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," 80 Fed. Reg. 64,662 (October 23, 2015), is stayed pending disposition of the applicant's petition for review in the United States Court of Appeals for the District of Columbia Circuit and disposition of the applicant's petition for a writ of certiorari, if such writ is sought. If a writ of certiorari is sought and the Court denies the petition, this order shall terminate automatically. If the Court grants the petition for a writ of certiorari, this order shall terminate when the Court enters its judgment.

Justice Ginsburg, Justice Breyer, Justice Sotomayor, and Justice Kagan would deny the application.

SCOTUS Order: February 9, 2016

- First SCOTUS stay where case pending in circuit court
- 5-4 decision
 - Justice Scalia was with the majority
- Doesn't impact D.C. Circuit schedule
- Stayed until litigation is complete
 - What does this mean for the CPP's state plan submittal deadlines?

IMPACT of Stay on ND Plan Development

- Initial response: Pause and reevaluate.
- Factors considered:
 - Use of limited state resources.
 - Legal issues – state law, litigation consequences.
 - Impact of stay of state plan submittal timeline.
 - Momentum created by stakeholder outreach.
- Developing path forward.

Path Forward

- Continue to Engage with companies
- Recent Meetings with Energy Research to examine potential Control Techniques (Allam Process)
- Gathering Information for Potential Development of Energy Generation Strategy
 - Anticipated Load Growth
 - Updated Renewable “In Place” and Forecast
 - Pollution Controls that are currently financed
 - Identify Remaining Useful Life

CPP Questions?

WOTUS

- Waters of the United States
- April 2014 Army Corps proposed Definition of WOTUS under CWA – purpose to clarify “but” became immediately controversial
- June 2015 Federal Agencies published final rule known as “Clean Water Rule” – did three things
 - Listed waters covered under the CWA
 - Listed Specific Exclusions
 - Defined Terminology

Controversy

- Federal Agencies say it “Clarifies” CWA Jurisdiction
- ND and other States see it as an “unlawful expansion of federal authority”
- Rule “On Hold” due to orders issues by ND federal judge and 6th Circuit Court of Appeals

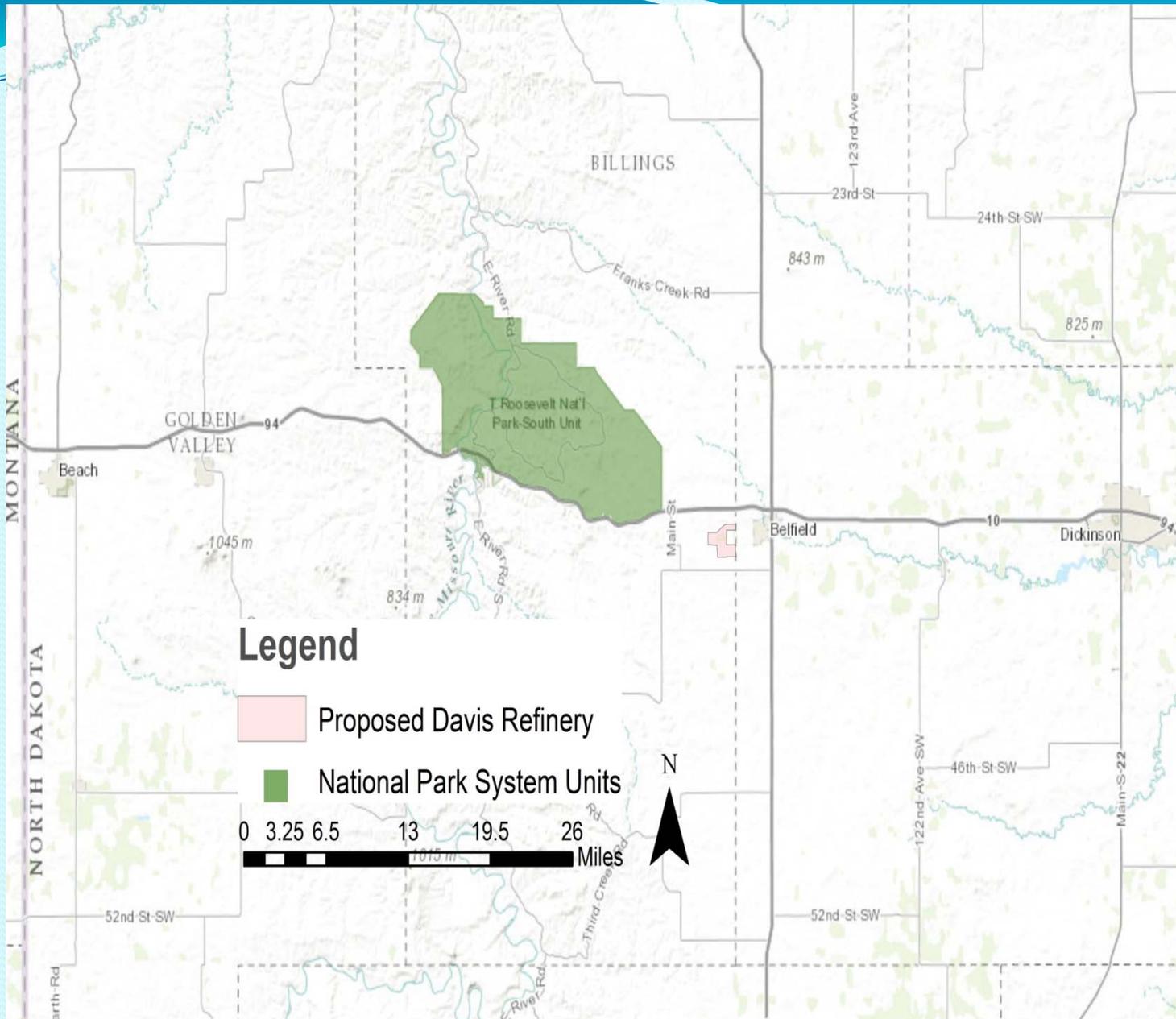
Current Status

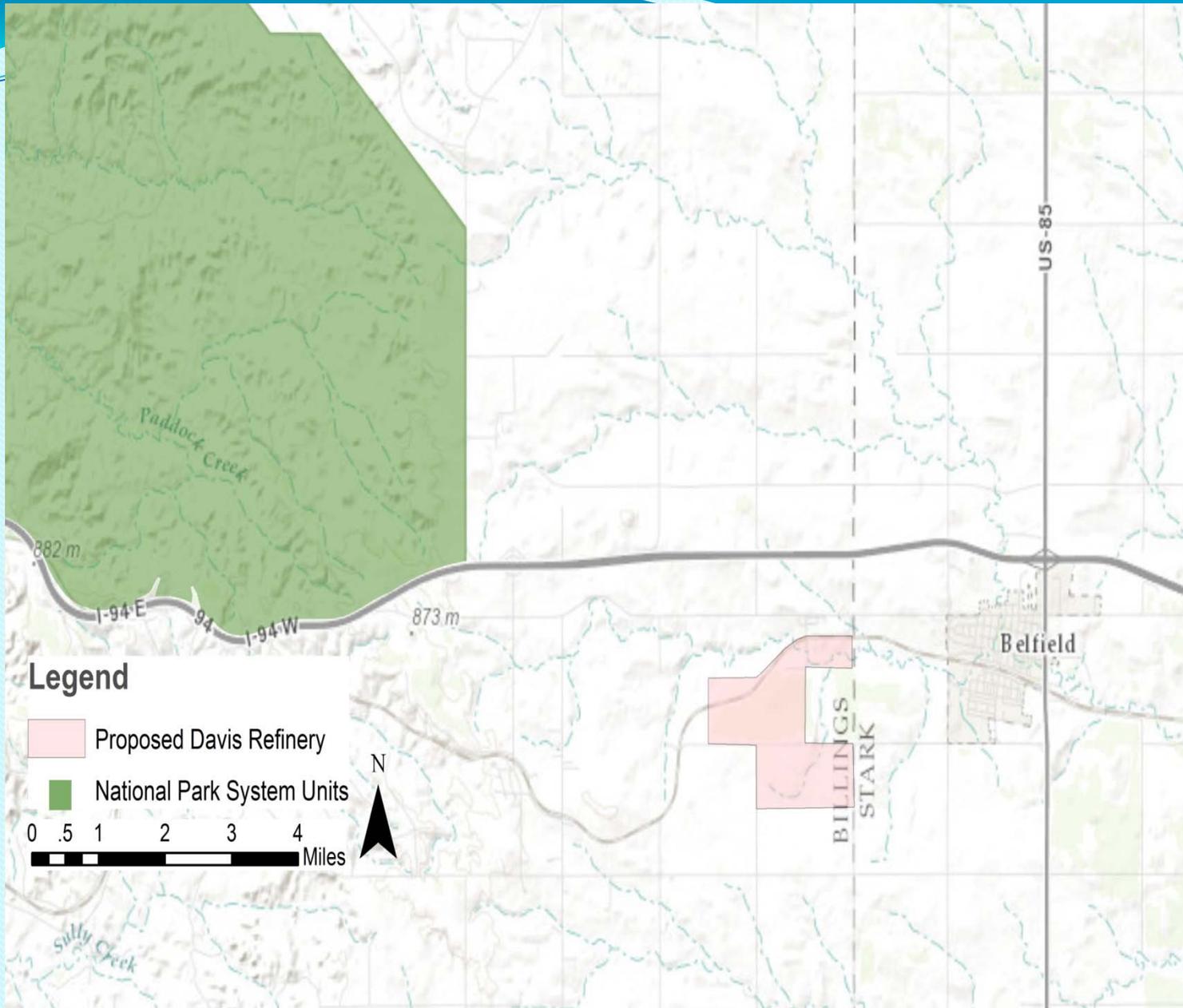
- On Hold
- To date, cases have been addressing the jurisdictional issue (which is the proper court to hear the case)
- ND is arguing that the case should be heard by the District court – Feds are arguing for 6th Circuit
 - 6th Circuit: a divided 3 judge panel issued an order that they have jurisdiction – ND & others asked for entire court to review
 - Awaiting decision by District Court
 - Merits have not yet been addressed – also pending in other Districts and 11th Circuit

WOTUS Questions?

Davis Refinery

- Several Meetings with the Company
- No Application has been submitted
- 55,000 Barrels/Day
- First Refinery in approximately 40 years
- Major Source - >100 TPY NO_x, SO₂ & CO₂





Major Hurdles Include

Major Source – Prevention of Significant Deterioration Review

NO_x – SO₂ – CO₂

Close Proximity to TRNP

Complex Review

BACT Review (Best Available Control Technology)

Tighter Standards in Park – Class I Area

Visibility modeling

30 Day Public Comment and Hearing

Lots of Interest - Public – EPA – NPS

Water Resources may be limited

Air Permit Review

UNDER PSD RULES:

- No Permanent Construction Activities allowed prior to obtaining Air permit
- A Best Available Control Technology (BACT) analysis is required.
- Computer dispersion modeling is required to estimate the project's impact on air quality.
 - Air quality standards are significantly more stringent due to proximity to Theodore Roosevelt National Park, a Class I area under federal rules.
 - Modeling of visibility impacts on the National Park is a complex task.
- A 30-day public comment period
 - Comments from public, EPA, and National Park Service must be addressed prior to issuance, and can significantly extend the review process.

Refinery Questions?

EmPower ND Commission

April 12, 2016

Nuts and Bolts

- No 2017 legislative bills contemplated by NDHFA at this time
- HIF reauthorization and request for further funding would be included in Governor's budget
 - \$90.4 million authorized for HIF between July 1, 2011 through June 30, 2017
 - More than \$79 million awarded thus far
 - Reviewing latest round of applicants for remaining funds
 - Leveraged more than \$373.9 in construction financing to support the development of 2186 new units
- 90% of HIF I (2011/13 biennium) mandated for energy impacted areas
- Priority for HIF II (2013/15 biennium) and HIF III (2015/17 biennium) for housing essential service workers (ESW) in energy impacted areas (mostly aimed at moderate income ESW households)
- Additional units in energy impacted areas for moderate income households may not be necessary due to declining market rate rents

Future of HIF

- **Is HIF still needed?**
 - 2016 Statewide Housing Needs Assessment (June completion anticipated) expected to define unmet housing needs
 - Early stakeholder forums indicate unmet need for
 - Low wage households
 - Rehab of existing affordable housing, primarily in small rural communities
 - Retirees living on Social Security
 - Persons with disabilities
- Affordable housing necessary for service sector – service industry necessary for diversification efforts
- Baby boomers will be leaving workforce
 - Lower incomes means less available to cover housing costs
 - Not enough in-state residents to fill these jobs (when baby boomers leave workforce) and state will need to recruit from other states and countries – having adequate affordable housing will be critical in recruitment efforts (information provided by Ken Gronbach, a demographer who spoke at a recent NDHFA Annual Housing Conference)

-
- A cashier; a hotel housekeeper; a day care worker; a bank teller; - with an hourly wage of \$10.00 should pay no more than \$520 per month for shelter costs
 - A retiree living on monthly Social Security of \$1152 should pay no more than \$345 per month for shelter costs
 - According to AARP, the average monthly SS benefit for a ND retiree was \$1152
 - Social Security is the only source of income for one in three North Dakotans, according to AARP
 - Rents of \$345 to \$520 cannot be achieved without state and/or federal funding;
 - operating and maintenance expenses and debt service payments would create a negative cash flow

-
- Small affordable projects built in the 1970s and early 1980s with federal funding are now facing rehab needs; if they are forced to finance the rehab with conventional debt, the rents become unaffordable
 - USDA Rural Development has a large inventory of affordable projects that are reaching their loan maturity and will be able to “opt-out” of their contract and become market rate
 - Placing HIF into these projects to cover rehab locks them in as affordable for an additional 15 years
 - Seniors forced out of community?
 - HIF creates a pipeline of affordable housing for a minimum of 15 years, preventing steep rent increases when and where demand outpaces supply
 - Availability of affordable housing contributes to the “quality of life” that job seekers look for when considering a move
 - HIF sunsets June 30, 2017 unless reauthorized

For More Information

General Information on Agency Programs:

www.ndhfa.org

Jolene Kline, Executive Director

jkline@nd.gov

701/328-8072



The remainder of the slides are for
background information only

Overview of NDHFA

- Self-supporting state agency that operates under the Industrial Commission
 - Provides low-cost mortgages for low-to-moderate income households (Homeownership Division);
 - Finances the construction and rehabilitation of affordable multifamily and single family housing and provides technical assistance to rural communities; (Planning and Housing Development Division);and
 - Monitors program compliance on low income housing projects (Property Management Division)

Housing Incentive Fund

- What is the Housing Incentive Fund?
- When, why and how did it start?
- What are the benefits?
- Who qualifies?

What is the Housing Incentive Fund

- State funded program to encourage developers to set-aside some or all of their rental units for low to moderate income households.
- Available only for rental units
- Administered by the North Dakota Housing Finance Agency www.ndhfa.org or www.ndhousingincentivefund.org
- Legislative mandated priority for housing essential service workers in city, county, state and medical jobs

When and How

- Initially created in 2011 by Legislature to allow a credit against state income and financial institution taxes equal to the contribution into the HIF.
 - \$4 million initial authorization during spring legislature
 - Increased to \$15 million in credits during 2011 special session

When and How

- Reauthorized in 2013 with \$20 million in credits and \$15.4 general fund appropriation
- Reauthorized in 2015 with \$30 million in credits and initial \$5 million from Bank of North Dakota plus an additional \$5 million dependent on 2015 profit level

Why

- Demand exceeded Supply
 - Rents were escalating rapidly on existing units
 - People were being priced out of their homes
 - Strong demand; high construction costs; and high land costs resulted in new production being unaffordable
 - Stagnant or shrinking federal programs resulting in fewer rent restricted units being produced
 - Existing affordable housing stock being converted to market rate

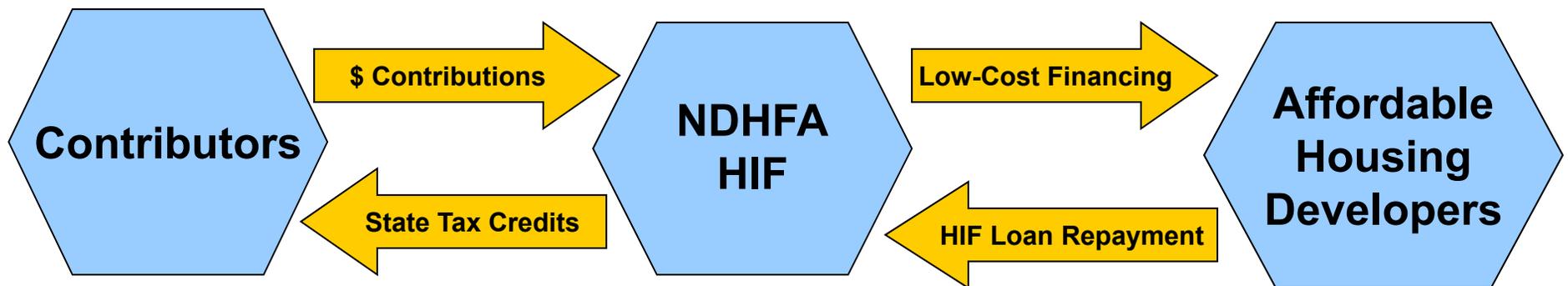
What are the Benefits and Who Qualifies

- Developer who agrees to have a portion of the project income and rent restricted qualifies for up to 30% of cost of project (limited to \$3 million) in the form of a 0% forgivable loan
- Available (on a competitive basis) to any for-profit or not-for-profit developer including political jurisdictions
- Applications scored, ranked and selected for funding on a quarterly basis
- Guarantees long term affordability to tenants
- Provides source of equity to developer/lower permanent debt

Eligible Uses of HIF

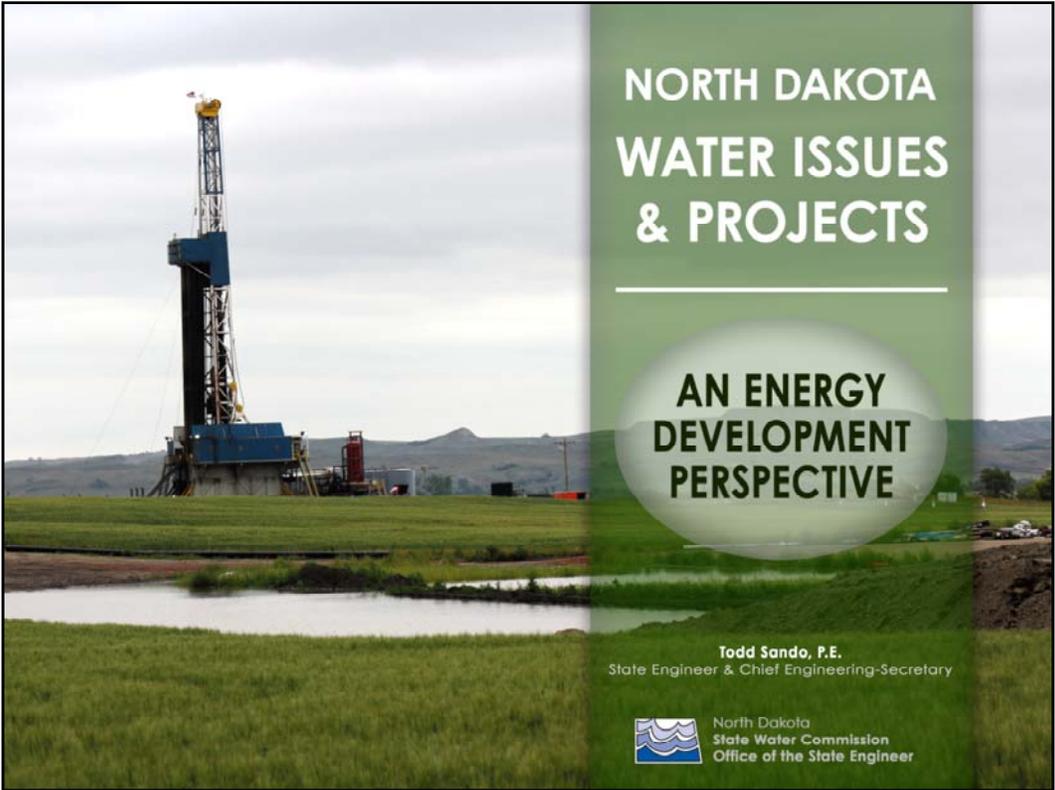
- New construction of multifamily rental housing
- Substantial rehabilitation of existing uninhabitable multifamily buildings (minimum of \$40,000 in hard construction costs per unit)
- Substantial rehabilitation of a project that is at risk of becoming uninhabitable because of age or deterioration and requiring a minimum of \$80,000 in hard construction costs per unit
- Adaptive reuse of existing non-residential building
- Use of HIF to buy-down debt and convert market rate units to income and rent restricted units
- Acquisition and rehab of existing HUD or USDA affordable housing where the current owner is opting out of their federal contract and HIF funding is required to prevent the loss of the affordable inventory
- Purchase, by a private entity, of existing publicly-owned essential service worker housing, resulting in divestiture by the public entity while maintaining or increasing the supply of affordable housing for essential service workers

How does HIF work? (with state tax credits)



Why Affordable Housing

- Diversifying an economy and recruitment of workforce requires affordable housing for a wide income range of employees
- Business owners/leaders statewide cite the lack of sufficient affordable housing as an obstacle in recruiting workforce
- Affordable rental housing options for seniors provides an opportunity for seniors to move from homeownership increasing opportunities for young families choosing to buy
- Costs are the same to build affordable housing as they are to build market rate
- It is impossible to build new housing and pay a combination of debt service, property taxes, insurance and operating expenses with rents of \$346 that are affordable to the average retiree living on Social Security.



NORTH DAKOTA WATER ISSUES & PROJECTS

AN ENERGY DEVELOPMENT PERSPECTIVE

Todd Sando, P.E.
State Engineer & Chief Engineering-Secretary

 North Dakota
State Water Commission
Office of the State Engineer

PRESENTATION OVERVIEW

- Dual Purpose Agency – Regulatory & Development
- Appropriating Water: Bakken Water Use
- Project Development – SWC Financial Support
- Federal Policy Challenges

DUAL PURPOSE AGENCY



The Office of the SE was created by the Legislature in 1905 to regulate and administer matters concerning the allocation of ND's water resources.



The SWC was created in 1937 by legislative action in response to the 1930s drought for the specific purpose of fostering and promoting water resource development in ND.

WATER APPROPRIATIONS



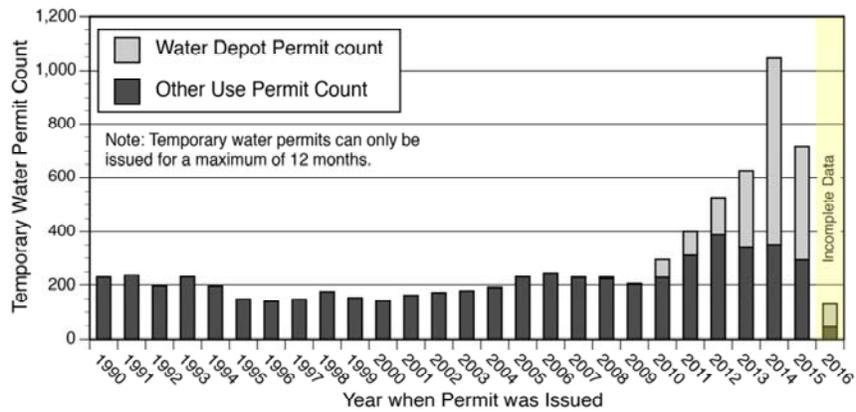
BAKKEN DEPOT WATER USE

2012, 2013, & 2014

Bakken Water Depot	Total 2012 Water Use (AcFt)	Total 2013 Water Use (AcFt)	Total 2014 Water Use (AcFt)
Conditional/Perfected Permits	5,911	6,886	10,518
Temporary Permits	4,438	5,603	10,874
Industrial In-Lieu-Of Irrigation Permits	4,100	2,937	3,470
Municipal Permits	1,674	3,626	5,873
Non-Permitted Use	39	54	80
Tribal Use	200	600	817
Total Acre-Feet	16,362	19,686	31,632

TEMPORARY WATER PERMITS

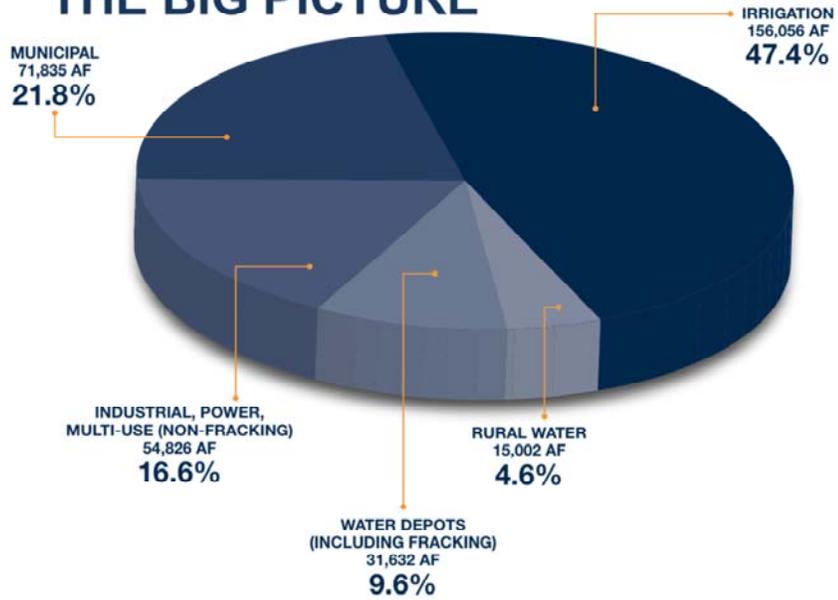
1990-2016



- 7,576 Temporary Water Permits, Issued By North Dakota OSE From 1990 To 2016
- 88% Of All Permits In The Bar Chart Are Surface Water Permits

2014 CONSUMPTIVE WATER USE

THE BIG PICTURE



WATER DEVELOPMENT



SB 2020

SWC WATER PROJECT FUNDING

SB 2020 Water Project Earmarks: 2015-2017 Biennium

Projects & Project Types	SB 2020 (Millions \$)	
	Grant	Loan
Sovereign Lands Recreation (Sec. 4)	\$1	\$0
Fargo Flood Control (Sec. 8)	\$69	\$0
Fargo Flood Control (Sec. 11) Dis. Relief Fund	\$30	\$0
Fargo Interior Flood Control (Sec. 12)	\$30	\$0
Grand Forks Water Treatment Plant (Sec. 13)	\$30	\$0
Red River Valley Water Supply (Sec. 14)	\$5	\$0
Missouri R. Flood Control (Sec. 15) Dis. Relief Fund	\$4	\$0
Water Supply Reimbursements (Sec. 16)	\$11	\$0
Flood Control (Sec. 17)	\$113	\$0
General Water Management (Sec. 17)	\$50	\$11
Rural Water Projects (Sec. 17)		\$130
Municipal Water Projects (Sec. 17)		\$85
Loans To Rural & Municipal - IRLF (Sec. 17)	\$0	\$25
Central Dakota Water Supply Reuse Fac. (Sec. 19)	\$10	\$40
Central Dakota Water Supply (Sec. 19)	\$20	\$0
PROJECTS TOTAL		\$664

FEDERAL POLICY CHALLENGES



U.S. Army Corps of Engineers

- Stored Water

Environmental Protection Agency

- Waters of the United States (WOTUS)

Bureau of Land Management

- Sovereign Land & Mineral Right Infringement

U.S. Forest Service

- Ground Water Regulation

U.S. Fish & Wildlife Service

- ESA Listings

THANK YOU!

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