

The Colorado
Clean Energy Development Authority
(CEDA)

Presented by Morey Wolfson,
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CEDA's formation and statutory references

CEDA was created by statute -

HB07-1150 in the Spring of 2007. However, the statute did not give CEDA the tools to do bonding- it prohibited commercial lending.

As a result of a series of compromises forced by the bankers and certain utilities, CEDA's statute was amended significantly in the Spring of 2010. The amendments permit CEDA to engage in commercial lending, but it limits CEDA's scope to provide assistance to clean energy developers for their interconnection projects (generation tie-lines) only.

CEDA's Organizational Structure

Board of Directors

1. Joel Bladow, appointed by the Minority Leader of the Senate
2. Don Elliman, State of Colorado Chief Operating Officer; CEDA Vice-Chairman
3. Cary Kennedy, Colorado State Treasurer
4. Jeffrey Nathanson, appointed by the Speaker of the House
5. Tom Plant, Director, Governor's Energy Office, CEDA Chairman
6. Lola Spradley, appointed by the Minority Leader of the House of Representatives
7. John Stulp, Colorado Commissioner of Agriculture
8. Sam Weaver, appointed by the President of the Senate; CEDA Secretary
9. Lee White, appointed by the Governor

Staff

Morey Wolfson,
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Bond Counsel

Gregory Johnson, Atty.
PattonBoggs

CEDA's Mission

If the legal opinion is approved by the Board that CEDA's statute allows the Authority to serve as a conduit financier of interconnection (generation tie-lines) from renewable energy developments, without having to receive approvals by the General Assembly and a vote of the people, then CEDA **may** be viable.

However, even if the above was deemed to be within the bounds of CEDA's authority, a practical question remains. **Will project developers want to conduct business with CEDA?** The developers will likely only seek CEDA assistance if the assistance materially improves the economics, and the timing works with the Xcel Energy's RFP process.

The next two pages illustrates the economics and timing.

Indicative Economics – 200 MW Wind Farm

	Savings via CEDA (1)		
	Base	5%	10% 15%
Capital Costs (\$ million)			
200 MW Wind Farm	\$400.0	\$400.0	\$400.0
50 Mile Gentie	\$25.0	\$23.8	\$22.5
TOTAL	\$425.0	\$423.8	\$422.5
Savings	\$1.3	\$2.5	\$3.8
Percent Savings	0.3%	0.6%	0.9%
Power Price (\$/MWh)			
200 MW Wind Farm	\$51.76	\$51.76	\$51.76
50 Mile Gentie	\$3.24	\$3.07	\$2.91
TOTAL	\$55.00	\$54.84	\$54.68
Savings	\$0.16	\$0.32	\$0.49
Percent Savings	0.3%	0.6%	0.9%

(1) Percent reduction in gentie cost due to lower cost money via CEDA

Wind Procurement Process

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7
Development							
Utility Bid & Selection Process							
Project Financing & Construction							

- The current CEDA process could materially complicate and extend the project timetable
- Any savings could be offset by the cost of project delays

CEDA's future

- Is not yet certain.
- If the Board deems CEDA to be incapable of helping with renewable energy project development, the Board may consider drafting an entirely new statute, and ask the legislature to pass the new statute “as presented.” If the legislature does not do so, the Board may then ask the legislature to eliminate the Authority.

Current CEDA initiatives/transmission projects

CEDA does not have any initiatives and transmission projects.

On a more positive note...

- Transmission initiatives are under way in Colorado.
- They are described in GEO's Renewable Energy Development Infrastructure (REDI) Report 12/09), and will be expanded upon in GEO's Strategic Transmission And Renewables (STAR) Report 12/31/10.

SB07-91 Report (December 2007)

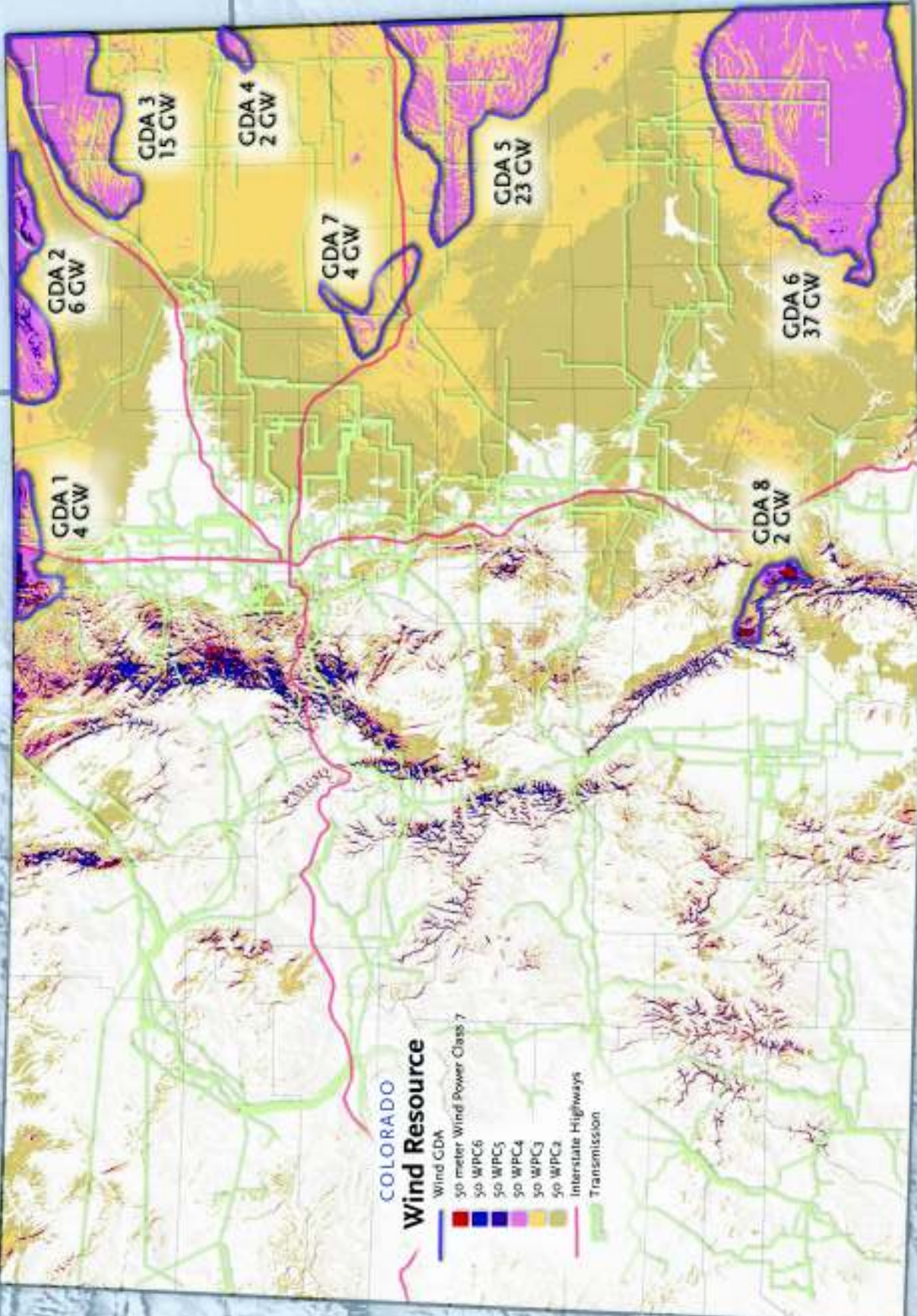
Objective:

“Develop maps of existing generation and transmission lines and potential renewable resource generation development areas within Colorado that have potential to support competition among renewable energy developers for development of renewable resource generation projects.”

Results:

“The 65-page *SB07-91 Report* provides the Governor, the General Assembly, and the people of Colorado with an assessment of the capability of Colorado’s utility-scale renewable resources to contribute electric power in the state from 10 Colorado Generation Development Areas (GDAs) that have the capacity for more than 96,000 megawatts (MW) of wind generation and 26,000 MW of solar generation.”

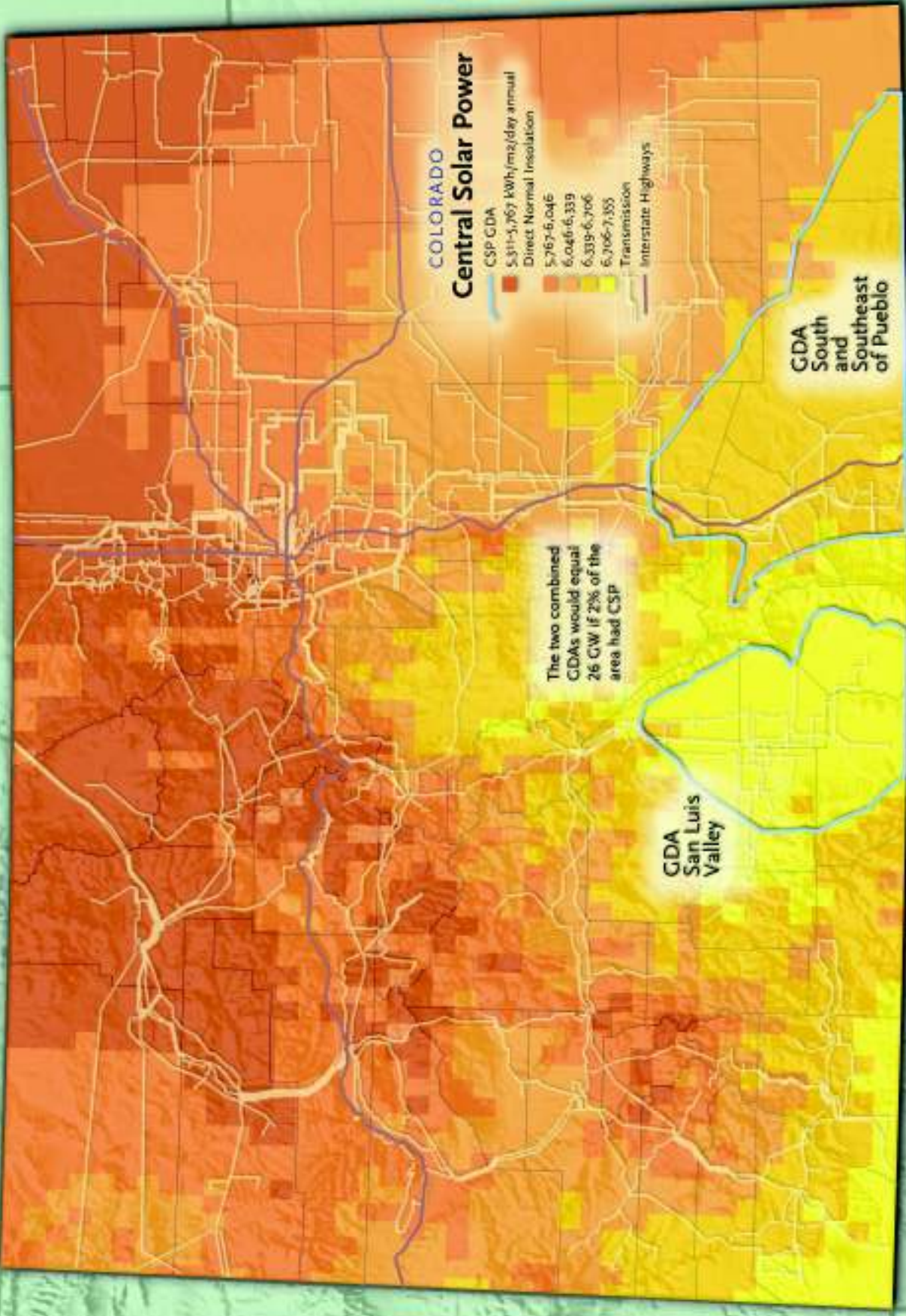




COLORADO

Wind Resource

- Wind GDA
- 50 meter Wind Power Class 7
- 50 WPC6
- 50 WPC5
- 50 WPC4
- 50 WPC3
- 50 WPC2
- Interstate Highways
- Transmission



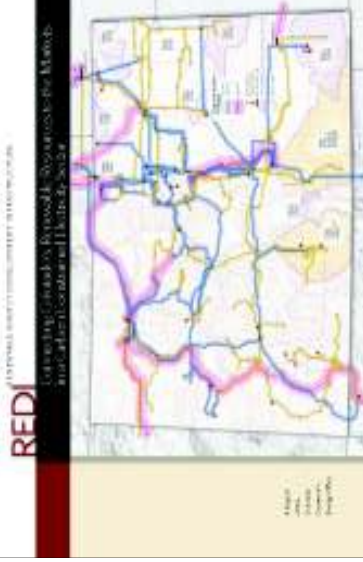
COLORADO
Central Solar Power

- CSP GDA
- 5,311-5,767 kWh/m²/day annual
- Direct Normal Insolation
- 5,767-6,046
- 6,046-6,339
- 6,339-6,706
- 6,706-7,355
- Transmission
- Interstate Highways

The two combined GDAs would equal 26 GW if 2% of the area had CSP

GDA
San Luis
Valley

GDA
South
and
Southeast
of Pueblo



REDI Report (December 2009)

Objective:

Produce a compendium of information regarding Colorado's electricity sector, focusing primarily on generation and transmission. Widely distribute the report to key stakeholders- utilities, regulators, legislators, the Governor, and the general public.

Results:

The 100-page report describes a series of options that should be pursued:

- Greatly increase investment in demand-side resources
- Greatly increase investment in renewable energy
- Accelerate construction of high voltage transmission
- Strategically use natural gas-fired generation
- Reduce the use of coal-fired generation

REDI

RENEWABLE ENERGY DEVELOPMENT INFRASTRUCTURE

Connecting Colorado's Renewable Resources to the Markets in a Carbon-Constrained Electricity Sector

Colorado Electricity Sector Carbon Dioxide Emissions in Millions of Metric Tons



Source: University of Colorado-Denver College of Engineering



Colorado Utilities Report (August 2010)

Objective:

“The objective of this *2010 Colorado Utilities Report* is to provide a resource for the general public and interested stakeholders about the electric and gas utility industries in Colorado”

Results:

The *2010 Colorado Utilities Report* is a compendium of data that provides insight into the current operational state of Colorado’s electric and gas utilities. Power supply mix, sales, and winter / summer peak demand data are all for calendar year 2009. The remainder of the data are current as of June 1, 2010.



Colorado's Electric
Power Sector in 2030
and 2050 in
conformance with the
Governor's Climate
Action Plan

STAR Report

Objective:

Produce a report that provides a vision of Colorado's electric power infrastructure in the years 2030 and 2050, given certain assumptions and constraints.

The STAR Report will be a detailed exposition of the key Colorado generation and transmission challenges and opportunities, with recommendations that address the most efficient and effective actions that Colorado, and regional transmission stakeholders, should consider addressing to effectively meet these challenges during calendar year 2011 and beyond.

The STAR Project will produce a variety of results that provide a vision of Colorado's electric power sector in the years 2030 and 2050, given a variety of credible assumptions and constraints.

The primary constraints will be meeting Governor Ritter's Climate Action Plan and least cost / least regrets pathways.

The STAR Project deliverables will contain detailed expositions of the Colorado's generation and transmission challenges and opportunities.

The Project will make specific recommendations that address the most efficient and effective actions that Colorado, and regional transmission stakeholders, should take to effectively meet these challenges during calendar year 2011 and beyond.

CEDA Contact Information

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