

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

IN THE MATTER OF TRANSCANADA)	
KEYSTONE PIPELINE, LP)	
FOR ORDER ACCEPTING CERTIFICATION)	HP14-001
OF PERMIT ISSUED IN DOCKET HP09-001)	PREFILED TESTIMONY
TO CONSTRUCT THE KEYSTONE XL)	of Dr. Robert Oglesby
PIPELINE)	

1, Please state your name and address for the record:

Dr. Robert J. Oglesby
835 S. 36th St
Lincoln, NE 68510

2. Please state your position and area of responsibility with respect to the Keystone XL pipeline.

Expert witness on behalf of the Intertribal Council On Utility Policy

3. Please state your professional qualifications:

PhD, 1990, Yale University in Large-Scale Climate Dynamics
Professor, Purdue University 1992-2000
Senior Scientist, NASA 2001-2005
Professor, University of Nebraska Lincoln 2006-present

4. Do you believe that the conditions are the same as when the Keystone XL permit was issued in 2010?

No

5. Do you believe the Keystone XL pipeline will comply with all applicable laws and rules of the State of South Dakota and the United States?

I am not a lawyer and therefore do not know all of these laws and rules. My expertise is on the impact that the pipeline will have on the environment, and vice-versa.

6. Do you know about the 30 Changed Conditions that TransCanada Keystone has submitted with the recertification of its permit?

Yes, and I have read them.

6. Do you believe the given these 30 changed conditions Keystone XL pipeline pose a threat of serious injury to the environment of South Dakota?

Yes. South Dakota lies in the Great Plains region of the United States. Its continental, semi-arid climate is always variable and subject to extremes, and can be, at times, harsh. Despite this apparent harshness, the past 150 years of settlement (referred to as the 'historic' period) occurred under a relatively moderate climate. In particular, this past 150-year period appears to have been remarkably wet. A dominant feature of the climate of the Great Plains, including South Dakota, over the past 2,000 years is the presence of prolonged periods of drought, termed megadroughts. We have every reason to think these megadroughts will recur in the future, indeed, quite likely in the very near future. Human activities appear to be making the problem even worse, through the emission of greenhouse gases, especially carbon dioxide, into the atmosphere. The above is based on analyses of records and instrumental observations of what actually occurred. Future projections based on climate models suggest additional temperature increases for South Dakota ranging from 3-4°F (low greenhouse gas emission scenario) to 8-9°F (high emission scenario) by the end of the 21st century. Clearly, the burning of the oil transmitted by the pipeline will exacerbate global warming in coming years.

But it is also not clear that TransCanada (TC) has adequately considered the implications of the extremely variable climate of South Dakota on the physical infrastructure of the pipeline itself, such as the likelihood of increased spillage events. Even if for the present-day climate extremes such an assessment were to be performed, how would the conclusions change under an even more extreme climate? The obvious a priori assumption would be that such events would be more, not less likely to occur.

7. Do you believe that given these 30 changed conditions that Keystone XL pipeline poses a threat to the social or economic condition of inhabitants or expected inhabitants in the siting area?

Yes. The past, known record of South Dakota climate, as well as future projections suggest that these climate, extremes, for which it is already well-known, can be, well, even more extreme than anything we have already experienced. To be blunt, if we keep on the present course, by later in this century large portions of South Dakota could simply become unlivable.

8. Do you believe that given these 30 changed conditions that Keystone XL pipeline will substantially impair the health, safety or welfare of the inhabitants?

9. Do you consider federally recognized Tribes to be "local units of government?"

This is outside my area of expertise.

10. Do you believe that given these 30 changed conditions that Keystone XL pipeline will unduly interfere with the orderly development of the region with due consideration having been given to the views of the governing bodies of affected local units of government?

This is outside my area of expertise.

11. Does this conclude your prepared testimony?

Yes.

Dated this 26th Day of June, 2015.

/S/ Robert Oglesby
