Nebraska's Emerging Bioeconomy

By John Bode

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While President-elect Donald Trump begins his transition into the White House this week, world leaders are gathered in Morocco negotiating the implementation of climate change regulatory requirements for agriculture and other key sectors--many impacting Nebraska farmers.

During the campaign, Trump promised to put America first, reduce regulations and pursue policies that recognize the value of American products. There is every reason to believe that policy change will soon remove the key federal roadblock to development of the bioeconomy.

Nebraskans know that American corn is the most efficiently produced carbohydrate in the world. It is a major engine in the American economy, specifically in American exports, food, feed, fuel, pharmaceuticals and varied industrial uses - foreign and domestic.

In Nebraska, corn is made into advanced bioproducts that replace petroleum-based chemicals and plastics that are all around us. These products are revitalizing farmer incomes and bringing high-paying jobs to the state. These carbon neutral or even carbon negative feedstocks are a powerful response to consumer concerns involving environmental practices. Various advanced bioproducts also are recyclable or biodegradable.

Nebraska already has two strong corn refining facilities producing advanced bioproducts, presenting a unique Corn Belt opportunity for the state. Rather than spending hundreds of millions of dollars on a new facility, these existing facilities could be expanded at a much lower cost. These two modern corn refining facilities currently employ more than 1,000 professionals and provide the core for state-of-the-art facilities producing advanced bioproducts. Already, these facilities directly and indirectly contribute \$6 billion in economic output to the state and help employ more than 26,000 people.

Nebraska's bioeconomy promises much more potential economic growth. According to a report by the <u>Biotechnology Innovation Organization</u>, the average annual wage for an employee in the agricultural feedstock and chemicals subsector of the Nebraska bioeconomy is \$63,000, nearly 20 percent higher than the average *total* household income for Nebraskans.

The agricultural feedstock and chemicals subsector also has a direct-effect employment multiplier of 17.9, the highest in the bioeconomy sector. Meaning, for every person directly employed in an advanced facility producing nonfood materials from corn, there are nearly 18 other jobs that exist in part to support this position. These are the jobs that form a strong economic foundation.

Last April, Iowa enacted the first of its kind Renewable Chemicals Production Tax Credit program to spur development of renewable chemicals and other advanced

bioproducts. Recognizing this ability to access start-up capital is crucial for the success of any new market sector.

By incentivizing the production of high value "building block" chemicals for the bioeconomy, Iowa took the first step toward building a market sector that can revitalize farmers' incomes, bring high paying jobs to Midwestern cities and actively address consumer concerns about social responsibility and the environment.

Nebraska can seize the same opportunity. Before decisions are made about the global marketplace, Nebraska should institute similar policies, setting the foundation for a Nebraska-Iowa bioeconomy hub.