



**DRIVER 3:
SUPERIOR INFRASTRUCTURE**

For decades, Indiana has earned the moniker “The Crossroads of America” due to its geographic location and the large number of interstate highways crossing it. Even with population shifts to the south and west, the center of the country’s population remains within Indiana’s borders and the state’s access to domestic and international marketplaces is a competitive advantage. Proximity to the Great Lakes, both for shipping lanes and as a fresh water resource, is another advantage over competitors. However, these assets cannot be taken for granted and Indiana must seek continued investment and improvement in roads, bridges, airports, fresh and waste water facilities, the electrical grid and – of growing importance – telecommunications networks (perhaps especially in the wireless area).

Our future challenges will be to allow competitive markets to function while judiciously using public dollars, maintaining what we already have and addressing new market demands. Of crucial importance will be to assure that Indiana has enough energy and water resources to affordably power its economy in coming decades while building out robust transportation and telecommunications networks to move goods, services and people to market. In these efforts, the mix between public funding and private investment, as well as the sometimes overriding impact of federal activity, could prove decisive.

SUMMARY OF KEY GOALS:

- Create and implement a plan to position Indiana as a net exporter of energy.
- Diversify Indiana’s energy mix with an emphasis on clean coal, nuclear power and renewables.
- Identify and implement workable energy conservation strategies.
- Develop and implement a strategic water resource plan that ensures adequate fresh water for citizens and business.
- Develop new fiscal systems to support the array of infrastructure projects critical to economic growth.
- Aggressively build out the state’s advanced telecommunications networks.

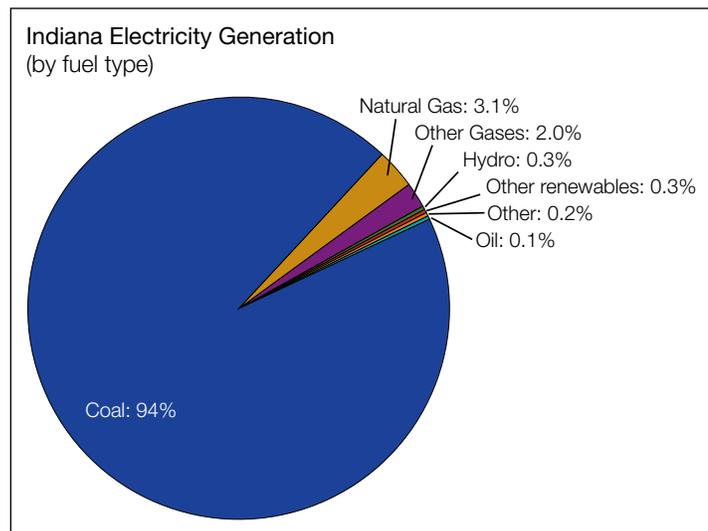
Energy

Indiana is an energy-intensive state. We make, mine and grow products that are consumed in Indiana, the United States and around the world. All of this requires energy. With hundreds of years of coal underground in Indiana, the primary source of electricity for Indiana has long been from coal. More than 95 percent of the state’s electricity comes from this single resource. The State Utility Forecast Group’s (SUFG) most recent forecast (2011) recognized a reduced electric power need from the previous forecast (2009) as a result of the economic downturn and the significant loss of manufacturing jobs and closing of facilities. The SUFG did, however, project electricity usage to grow at a rate of 1.30% per year over the 20-year forecast, which corresponds to about 275 megawatts (MW) of increased demand per year. That would require the building of a large power plant (1,000 MW) at least every four years. To put that in perspective, the Duke Energy Edwardsport generating facility that has been under construction for a number of years is rated at 630 MW.

The additional demand has been effectively managed through the efforts of the Indiana electric power generators and the Midwest Independent System Operator (MISO) that oversees the generation and flow of electricity in a multi-state area. Because of those efforts, the electric power industry believes there to be adequate electric power generation in the near term – three years.

However, as an energy-intensive state with growing demand, it is critical that the state establish and implement a long-term plan for its energy needs. The goal is to maintain Indiana’s adequate, reliable and affordable supply of electricity. This goal will continue to promote one of Indiana’s key economic advantages.

The current federal administration has essentially declared war on the use of coal. While Congress has pushed back recently on federal anti-coal initiatives, the EPA has launched a full assault through regulations that would hinder the use of coal and/or



render it prohibitively expensive. Indiana cannot afford to remain dedicated exclusively to coal and must diversify its energy portfolio to include not just coal, but natural gas, nuclear, domestic petroleum and renewables while engaging in conservation strategies.

The producers and users of energy in Indiana have conflicting goals. The producers want a fair, clear process that allows recovery of expenses and reasonable return on investment while the consumers want reliable sources at minimal rates. Historically, this has been a challenge and it will remain so.

Indiana's transmission and distribution system has not been significantly upgraded in many years. Like any infrastructure, it requires routine attention and upgrades, which are costly.

With plentiful coal, oil and some gas reserves, the state should review all reasonable exploration opportunities. Shale gas and recent domestic oil finds indicate potential energy resource opportunities for the state that should be assessed.

The beginning of a viable, long-term strategy for Indiana that seeks to enhance future capacity while maintaining our adequate, reliable and affordable supply of energy would:

- Create an aggressive near and long-term energy plan, recognizing and involving all stakeholders.
- Identify all energy resources including coal, natural gas, petroleum, shale gas, wind, solar, nuclear and geothermal and determine their potential contribution to Indiana's energy future.
- Assess Indiana's current energy infrastructure and develop a plan to address those needs to maintain an adequate, reliable and affordable supply of energy.
- Identify and implement mechanisms to incentivize Indiana's energy sources and building of additional capacity.
- Identify and implement workable energy conservation strategies.
- Create and implement a plan to position Indiana as a net exporter of energy.

While Indiana is an energy-rich state, there are potential threats or game-changers that should be taken into consideration in the development of a proactive and forward-looking energy plan. Those may include:

- EPA restrictive regulations.
- Mandated federal/state Renewable Energy Standard.
- Federal promotion/restrictions on nuclear power, clean coal and traditional coal power plants.
- Shale gas – availability as a resource and potential use in Indiana.

Water

Fresh water is essential for human life. It is also a major element for a sustainable and developing economy. Indiana has long-enjoyed a reliable and adequate supply of fresh water.

Average annual rainfall in Indiana is approximately 40 inches, ranging from about 35 inches near Lake Michigan to 45 inches along the Ohio River. Indiana is blessed with access to substantial water resources in northwestern Indiana with Lake Michigan, and along the southern border of the state with the Ohio River and associated alluvial deposits, including a significant state-owned ground water resource near Charlestown. In addition to these resources, more than one-half of the state contains ground water resources capable of supplying wells with capacities greater than 100,000 gallons per day. Moreover, Indiana, in conjunction with the U.S. Army Corps of Engineers, provides for 282 million gallons per day (MGD) of dedicated water supply storage in three reservoirs in southern Indiana (Brookville, Monroe, and Patoka) of which only 45 MGD (16%) are currently committed through state contract.

Other regions of the country have experienced significant water shortages – restrictions that have critically affected fresh water supplies and which serve to limit economic growth (recall the governors of Georgia and Texas in recent years praying for rain; prayer is no substitute for sound public policy). Some states, in fact, already have turned to the courts in an effort to redraw state borders to gain access to water (Georgia again). While other states and regions fight over water, Indiana should lay out a plan demonstrating why investment here is in our long-term economic interest.

There are many types of legal entities that provide water and wastewater services to Hoosiers. These include investor-owned, municipal, not-for-profits, water authorities, regional water/wastewater districts and conservancy districts. Presently, the Indiana Utility Regulatory Commission regulates approximately 118 out of 824 water utilities and 54 out of 531 wastewater utilities.

It has been estimated that statewide wastewater and drinking water infrastructure needs for the period 2000 to 2020 would require \$12.4 billion to \$13.9 billion in funding for capital projects to rehabilitate or improve infrastructure for: (1) correction of combined sewer overflows or CSOs; (2) wastewater conveyance and treatment; (3) remediation of failing on-site septic systems; (4) storm water conveyance and management; and (5) drinking water production, treatment and distribution facilities. Indiana may be a leader in funding the investment necessary to change to the next century of water use infrastructure, but the state must also lead in planning the most efficient use of every dollar spent.

Indiana has taken significant steps to protect waters in the Great Lakes basin through the Great Lakes Compact, but it has not prepared a statewide plan for the construction of infrastructure and regulation of this increasingly important resource. We have an opportunity to redesign outdated notions of water use and planning to maximize the economic advantage our water resources provide. The scope of investment necessary, coupled with a much more interconnected society, requires that Indiana approach its water resources in a fundamentally different manner than the current localized approach.

Traditional thinking should be challenged as it is essential to preserve and protect this valuable resource and recognize that national and global competition requires broader cooperation across the state. Communities must work together to utilize Indiana's advantage and realize potential economic growth. The result of narrow, local planning is that resource sharing and economies of scale are missed. Indiana must rethink the way it plans, regulates and utilizes its water resources.

Recommended actions include:

- Survey available water resources.
- Identify the areas of the state that have or will have significant water needs.
- Identify those local, regional or statewide approaches to water resources and requirements that would best maximize the value and minimize the cost of water use.
- Develop infrastructure investment priorities.
- Identify constitutional, statutory, administrative or other policy changes necessary to create an effective system that will maximize water resources.
- Develop and implement a comprehensive, long-range plan considering both water and waste water needs that will realize a secure and advantageous position for the state's citizens, businesses and industries while promoting aggressive economic development.

Transportation

"The Crossroads of America" is a fitting designation for Indiana: The state ranks first in the nation in access to interstate highways, first in pass-through interstates, ninth in rail miles and is within one-day's drive of 75% of the U.S. and Canadian populations (Canada is Indiana's largest trading partner). Indiana is home to the world's second largest FedEx distribution facility. The state runs a trade surplus – Hoosiers are exporters – and the logistics sector employs nearly 310,000 people while paying higher than average wages. Indiana's transportation network is a huge economic engine upon which our manufacturing firms and agribusinesses depend to receive critical inputs and move their goods to market.

Looking forward, Indiana must make critical investments in its multimodal transportation system and preserve, indeed exploit, this competitive advantage that geography and past investments have created. We must do so in an increasingly austere fiscal environment at both the state and federal levels while being mindful of technological progress that will challenge old standards of infrastructure planning, construction and finance.

Since the inception of the state's visionary Major Moves program in 2006, Indiana has seen unprecedented investment in its transportation infrastructure and it bears remembering that these investments: 1) are the result of private capital being deployed for public purposes; 2) will come to an end in the not-too-distant future; and 3) will not by themselves address all of the state's road infrastructure needs.

Indeed, the state will face several challenges going forward. This year (2011) represents the peak of Major Moves spending with approximately \$1.6 billion being deployed. Over the next few years, that amount will decline rapidly to around \$600 million in construction spending in 2014. This planned-for decline will have implications for the state, its transportation network and construction-related employment: Major new construction projects will slow drastically, if not disappear; the vast majority of funds post-2014 will be spent on preservation of existing assets (which are substantial) and will be inadequate to address future expansion needs.

At the same time that Indiana's Major Moves program begins to conclude, the situation in Washington, D.C. portends fewer federal resources. Almost 40 cents of every dollar that Indiana invests in roads and highways today comes from the Federal Highway Trust Fund – a fund that has moved into insolvency numerous times in recent years and has had to have its dedicated revenues from the federal gasoline tax (last raised in 1993, never indexed to inflation) supplemented by numerous “emergency” appropriations from general revenues. These general revenues themselves are in doubt as the national economy struggles and the federal government focuses on eliminating deficits and debt.

In short, Major Moves is coming to an end and the pool of federal resources will shrink at the same time that Indiana will need to make continued strategic investments to expand the capacity of its transportation network.

Creative planning for this vital network is necessary today in order to secure our state's economic prosperity tomorrow. Fortunately, sector-focused organizations such as Conexus Indiana have committed serious resources to addressing these challenges and the Indiana Chamber has collaborated in these efforts. We join Conexus Indiana and others in calling for a strategic plan for Indiana's transportation future that will:

- Reduce transportation bottlenecks that improve the reliability and efficiency of freight movement, leading to less congestion, lower infrastructure repairs and lower emissions.
- Ensure global access by connecting Indiana cities to interstate-like access based upon economic impact and development potential.
- Create better connectivity of Indiana's water ports via roads and rail modes and improve the reliability and efficiency of water freight movement.
- Develop a fast and efficient process for unplanned economic development infrastructure needs.
- Develop and implement the utilization of transportation networks that provide direct rail, truck access and air service expansion, leading to the improvement and establishment of multimodal and intermodal service and air facilities.

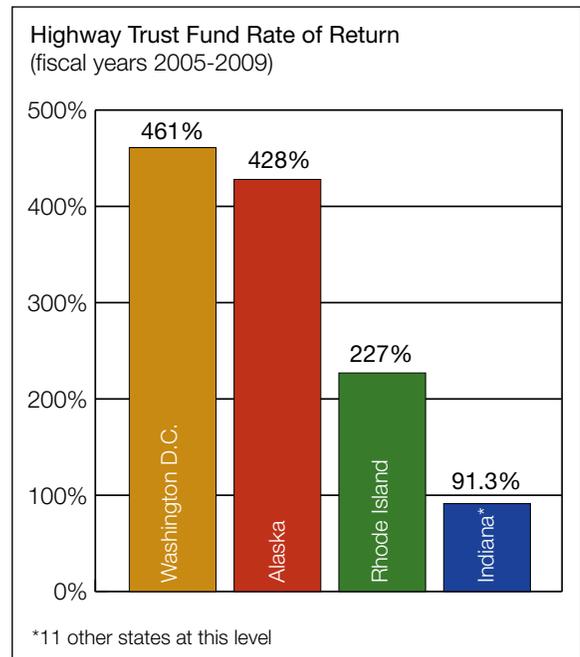
By pursuing the above in a collaborative manner, Indiana will build upon its position at the heart of the global supply chain and enhance the employment and economic prospects of all Hoosiers. Among the questions to be answered:

- Do the current federal-state fuel taxes have ongoing value as a funding mechanism?
- Is it necessary to raise these taxes in order to meet future transportation needs?
- Should an alternative funding mechanism, potentially a vehicle miles traveled assessment, be considered?

Next Generation Telecommunications

Deployment of broadband communications technology is a well-established driver of economic growth. Over the past decade, more than half of all states have made significant reforms to their telecommunications policies. By far, the most dramatic changes have been the reorganization of local monopolies for the provision of cable television, which is highly correlated with the provision of high-speed data services (broadband) to homes and businesses.

Indiana enacted sweeping telecommunications deregulation in 2006 and since that time has seen significant investment by private market participants: A 2008 study of the law's effects conducted by Ball State University's Digital Policy Institute found the legislation has brought broadband services to 102 rural Indiana communities, created 2,200 new jobs and realized more than \$1.5 billion in new investment in this critical infrastructure. At the same time, competition in urban markets, as well as subscriptions to high-speed data services, has increased dramatically while the price of such services has declined. National research from the Federal Communications Commission (FCC) and the Government Accountability Office suggest that the price of such services will drop between 15% and 20% as providers respond to new market entrants and direct consumer negotiation.



The Indiana Utility Regulatory Commission successfully defended Indiana's 2006 reform before the FCC, arguing that states were in the best position to regulate these markets versus the federal government. As a result, Indiana's and other states' laws were grandfathered. Just as in transportation infrastructure, the interplay between the state and federal governments will prove critical to future progress.

Here, we advocate once again for the power of free markets to realize the best economic gains and achieve strategic economic objectives. Indiana's 2006 market-oriented reform has proven highly successful with consumers and providers responding in beneficial ways.

Even as broadband is made more widely available and consumer acceptance increases, new and better technologies are on the horizon. A decade ago when the Indiana Chamber's *Economic Vision 2010* plan was introduced, no one could accurately foresee today's telecommunications landscape, populated with 3G and now 4G technologies, smartphones, thousands of software applications ("apps") for these phones, and tablets and other wireless devices.

In such a rapidly developing, dynamic environment characterized by intense technological innovation, the best course of action for policymakers is most likely the least active course of action. A decade ago, broadband-over-power line, or BPL, was receiving significant buzz; not anymore, as the wireless sphere has experienced exponential growth and seems to be the "wave of the future." Rather than attempt to pick winners or losers based upon ever-changing technology, state (and federal) policymakers should learn from past policy successes, allow markets to operate and guard only against anti-competitive or monopolistic practices. In rare instances in which market forces are not sufficient to provide broadband access, the state may want to examine remedial policy efforts, but that has not been the experience of Indiana or other jurisdictions over the past decade. The current situation in Indiana seems to call for significant examination rather than intervention.