

Iowa's Energy Resources – Working Group Meeting #4

May 26, 2016; 1:00 pm - 3:00 pm

Meeting Summary

I. Meeting Objectives

- To develop draft objectives for recommendation to the energy plan leadership team.
- To develop draft strategies for recommendation to the energy plan leadership team.

II. Revised Vision Statement Discussion

During the meetings facilitators presented a revised vision statement for the Iowa energy plan to working group members. The vision statement was revised using comments received from working group members and the public during the third working group meeting (April 28, 2016).

Iowa is committed to the development of an affordable, reliable and clean energy system that maximizes economic benefits for our state. We will continue to embrace a mix of energy resources, infrastructure, and technologies while prioritizing energy efficiency and conservation to position all of Iowa – both rural and urban – for future growth. As an energy leader, our efforts will drive innovation, foster research and development, create business opportunities and promote environmental stewardship.

III. Revised Guiding Principles Discussion

During the meetings facilitators presented revised guiding principles for the Iowa energy plan to working group members. The guiding principles were revised using comments received from working group members and the public during the third working group meeting (April 28, 2016).

The objectives and strategies put forth in the Iowa Energy Plan will:

- Foster long-term energy affordability and price stability for lowa's residents and businesses.
- Increase the reliability, resiliency and security of lowa's energy systems and infrastructure.
- Stimulate research and development of new and emerging energy technologies and systems.
- Provide predictability in lowa's energy market by encouraging long-term actions, policies and initiatives.

- Expand opportunities for access to resources, technologies, fuels and programs throughout lowa.
- Seek diversity in the resources that supply energy to and within lowa.
- Support alternative energy resources, technology, and fuel commercialization in proven, cost-effective applications.
- Promote the protection of the environment and lowa's natural resources.

IV. Development of Objectives and Strategies

During the meeting working group members participated in a facilitated brainstorming exercise to identify objectives and strategies for the energy plan correspond to the energy pillar "lowa's Energy Resources."

Attached is a summary of the rough objectives and strategies that were discussed during the session. The summary does NOT represent any final recommendations. Ideas put forth were recorded during the meeting and the group will continue to contribute additional thoughts and refine ideas through the end of June.

V. Comments and Questions Received from the Public

N/A.

Provide lowans with safe energy sources and delivery including cyber security. Ensure lowa maintains low and competitive industrial energy rates to encourage economic development. Maintain low energy rates to encourage economic growth. Maintain fordable and reliable energy generation. Maintain affordable and reliable energy generation. Promote baselaad hydro and convert flood control dams into generation. Access and choice to various energy options. Reach high levels of wind energy installation (10,000 MW by 2020). 20,000 MW by 2030; reference wind vision report by DOE). **Reach high levels of wind energy installation (10,000 MW by 2020). 20,000 MW by 2030; reference wind vision report by DOE). **Reach high levels of wind energy installation (10,000 MW by 2020). 20,000 MW by 2030; reference wind vision report by DOE). **Reach high levels of wind energy installation (10,000 MW by 2020). 20,000 MW by 2030; reference wind vision report by DOE). **Reach high levels of wind energy installation (10,000 MW by 2020). 20,000 MW by 2030; reference wind vision report by DOE). **Reach high levels of wind energy installation (10,000 MW by 2020). 20,000 MW by 2030; reference wind vision report by DOE). **Reach high levels of wind energy installation (10,000 MW by 2020). 20,000 MW by 2030; reference wind vision report by DOE). **Reach high levels of wind energy installation (10,000 MW by 2020). 20,000 MW by 2030; reference wind vision report by DOE). **Reach high levels of wind energy for exporting to other states. **Reach high levels of wind energy wind energy for exporting to low at integration and explore more than the distributed generation rule making that so ut there now. **Real a consulting firm to look at integration and explore more than the distributed generation rule making that so ut there now. **Real a consulting firm to look at integration and explore more than the distributed will be generation rule making that so ut there now. **Real a consulting firm to look at integration and relev	NUMBER	OBJECTIVE	NUMBER	STRATEGIES
Ensure lowa maintains low and competitive industrial energy rates to encourage economic development. A Maintain low energy rates to encourage economic growth. Maintain low energy rates to encourage economic growth. A Aknowledge and be aware of leakages resulting from choices. A Lowell and be avaer of leakages resulting from choices. A Lowell and be avaer of leakages resulting from eleighth. Beta Pricap Pa Seath in the cast of subtraints to the result in other states. Pricap Pa Seath in the cost of implementation of Aknowl	1		1.1	Interconnections and utility codes.
Reach high levels of wind energy rates to encourage economic growth. 2.1 Cust of service regulation.			1.2	increase pipelines for natural gas.
Maintain affordable and reliable energy generation. 4.1	2		2.1	Cost of service regulation.
5 Promote baseload hydro and convert flood control dams into generation. 5.1 Investigate roadblocks to consumer choice in customer generation. 6 Access and choice to various energy options. 6.1 Investigate roadblocks to consumer choice in customer generation. 7 Reach high levels of wind energy installation (10,000 MW by 2020), 20,000 MW by 2030; reference wind vision report by DOE). 7.1 Position wind energy for exporting to other states. 8.1 Retain a consulting firm to look at integration and explore more than the distributed generation rule making that is out there now. 8.2 Pricing. PPAs, zonal pricing vs. utility-wide pricing. 8.2 Pricing. PPAs, zonal pricing vs. utility-wide pricing. Encourage incentives or tax policies to assist in the cost of implementation of AMI and other technologies that get data on load and position lowa for the smart grid. 8.4 Undertake a study to determine the value of solar and other renewable energy resources including energy efficiency in lowa. 9 Focus on zone pricing as opposed to utility-wide pricing. 9.1 Market at the distribution level 9 State controls the rate; buying from MISO under Purpa/PPA 10 Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 10.1 State controls the rate; buying from MISO under Purpa/PPA 11	3	Maintain low energy rates to encourage economic growth.	3.1	Acknowledge and be aware of leakages resulting from choices.
9.1 6 Access and choice to various energy options. 7 Reach high levels of wind energy installation (10,000 MW by 2020). 8 Reach high levels of wind energy installation (10,000 MW by 2020). 8 Reach high levels of wind energy installation (10,000 MW by 2020). 8 Reach high levels of wind energy installation (10,000 MW by 2020). 9 Retain a consulting firm to look at integration and explore more than the distributed generation rule making that is out there now. 8.2 Pricing, PPAs, zonal pricing vs utility-wide pricing. 8.3 Encourage incentives or tax policies to assist in the cost of implementation of AMI and other technologies that get data on load and position lowa for the smart grid. 9 Undertake a study to determine the value of solar and other renewable energy resources including energy efficiency in lowa. 9 Procus on zone pricing as opposed to utility-wide pricing. 9.1 Market at the distribution level 9.2 State controls the rate; buying from MISO under Purpa/PPA 10 Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 11 Better integration of decentralized energy sources to allow for energy choice in all sectors. 12.1 Use of utility or individual storage	4	Maintain affordable and reliable energy generation.	4.1	
Reach high levels of wind energy installation (10,000 MW by 2020, 20,000 MW by 2030; reference wind vision report by DOE). 7.1 Position wind energy for exporting to other states.	5	, and the state of	5.1	
8.1 Retain a consulting firm to look at integration and explore more than the distributed generation rule making that is out there now. 8.2 Pricing, PPAs, zonal pricing vs utility-wide pricing. 8.3 Encourage incentives or tax policies to assist in the cost of implementation of AMI and other technologies that get data on load and position lowa for the smart grid. 8.4 Undertake a study to determine the value of solar and other renewable energy resources including energy efficiency in lowa. 9 Evelop methodology to account for externalities when determining costs and value of resources. 8.6 Implement a joint pilot project to examine integration. 9 State controls the rate; buying from MISO under Purpa/PPA 10 Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 11 Better integration of decentralized energy sources to allow for energy choice in all sectors. 12.1 Use of utility or individual storage	6	Access and choice to various energy options.	6.1	Investigate roadblocks to consumer choice in customer generation.
8.1 generation rule making that is out there now. 8.2 Pricing, PPAs, zonal pricing vs utility-wide pricing. 8.3 Encourage incentives or tax policies to assist in the cost of implementation of AMI and other technologies that get data on load and position lowa for the smart grid. 8.4 Undertake a study to determine the value of solar and other renewable energy resources including energy efficiency in lowa. 9 Pocus on zone pricing as opposed to utility-wide pricing. 9.1 Market at the distribution level 9.2 State controls the rate; buying from MISO under Purpa/PPA 10 Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 11 Better integration of decentralized energy sources to allow for energy choice in all sectors. 12 Ensure energy conservation and renewable energy sources to address peak demand across all sectors. 12.1 Use of utility or individual storage	7		7.1	Position wind energy for exporting to other states.
8.3 Encourage incentives or tax policies to assist in the cost of implementation of AMI and other technologies that get data on load and position lowa for the smart grid. 8.4 Undertake a study to determine the value of solar and other renewable energy resources including energy efficiency in lowa. 8.5 Develop methodology to account for externalities when determining costs and value of resources. 8.6 Implement a joint pilot project to examine integration. 9 Focus on zone pricing as opposed to utility-wide pricing. 9.1 Market at the distribution level 9.2 State controls the rate; buying from MISO under Purpa/PPA 10 Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 11 Better integration of decentralized energy sources to allow for energy choice in all sectors. 12 Ensure energy conservation and renewable energy sources to address peak demand across all sectors. 12.1 Use of utility or individual storage		Focus integration of renewables into existing infrastructure.	8.1	
the second position of renewables into existing infrastructure. 8.3			8.2	Pricing, PPAs, zonal pricing vs utility-wide pricing.
8.4 Undertake a study to determine the value of solar and other renewable energy resources including energy efficiency in lowa. 8.5 Develop methodology to account for externalities when determining costs and value of resources. 8.6 Implement a joint pilot project to examine integration. 9 Focus on zone pricing as opposed to utility-wide pricing. 9.1 Market at the distribution level 9.2 State controls the rate; buying from MISO under Purpa/PPA 10 Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 11 Better integration of decentralized energy sources to allow for energy choice in all sectors. 12 Ensure energy conservation and renewable energy sources to address peak demand across all sectors. 12.1 Use of utility or individual storage	8		8.3	
8.5 resources.			8.4	
Focus on zone pricing as opposed to utility-wide pricing. 9.1 Market at the distribution level 9.2 State controls the rate; buying from MISO under Purpa/PPA 10 Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 11 Better integration of decentralized energy sources to allow for energy choice in all sectors. 12 Ensure energy conservation and renewable energy sources to address peak demand across all sectors. 12 Use of utility or individual storage			8.5	,
9.2 State controls the rate; buying from MISO under Purpa/PPA 10 Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 11 Better integration of decentralized energy sources to allow for energy choice in all sectors. 12 Ensure energy conservation and renewable energy sources to address peak demand across all sectors. 12 Use of utility or individual storage			8.6	Implement a joint pilot project to examine integration.
Continue renewable evolution if engineering and pricing signals to grow are present (market pushes). 10 Better integration of decentralized energy sources to allow for energy choice in all sectors. 11 Ensure energy conservation and renewable energy sources to address peak demand across all sectors. 12 Use of utility or individual storage	9	Focus on zone pricing as opposed to utility-wide pricing.	9.1	Market at the distribution level
grow are present (market pushes). Better integration of decentralized energy sources to allow for energy choice in all sectors. Ensure energy conservation and renewable energy sources to address peak demand across all sectors. 12.1 Use of utility or individual storage			9.2	State controls the rate; buying from MISO under Purpa/PPA
choice in all sectors. Ensure energy conservation and renewable energy sources to address peak demand across all sectors. 12.1 Use of utility or individual storage	10		10.1	
address peak demand across all sectors.	11		11.1	
13.1 Continue the Clean Power Plan stakeholder process	12		12.1	Use of utility or individual storage
	13		13.1	Continue the Clean Power Plan stakeholder process

NUMBER	OBJECTIVE	NUMBER	STRATEGIES
	Plan for carbon reductions and be a leader using the Clean Power Plan goals as guidelines.	13.2	Develop a GHG reporting framework
		13.3	Continue to work with other states to identify regional solutions.
	Leverage lowa Universities and research centers for research on new technologies and storage capabilities.	14.1	Establish incentive program for storage
14		14.2	Pumped storage as a strategy at existing reservoirs.
		14.3	Institute a tax credit.
		14.4	Balance research and commercialization.
		14.5	Coordinate with utilities (IUB) and businesses to address incentives for storage.
15	Encourage development of additional infrastructure that is cost effective for lowans.	15.1	Support state agency RTO involvement and understanding.
		15.2	Ensure MISO is planning for lowa's expansion of renewable energy. This can be done by communicating lowa's goals into MISO processes.
		15.3	Build out natural gas infrastructure where needed to facilitate economic development.
		15.4	Remove obstacles to building natural gas pipelines that are needed in Iowa.
		15.5	Develop inventory areas with natural gas constraints
		15.6	Conduct a study to inventory existing natural gas infrastructure in the state of lowa.
		15.7	Develop rate structure or funding so that costs are covered by those who benefit
		15.8	Implement transparency of costs on utility bills
16	Connect employers with educators who understand workforce needs.	16.1	Create awareness amongst faculty and parents.
		16.2	Engage lowa's universities and community colleges in energy related workforce development.
		16.3	Connect leaders in energy employment.
		16.4	Use the educated workforce as a strategy to recruit new employers to the state.
17	Ensure consumer protection.	17.1	Institute criminal background checks for contractors working in utility programs.
		17.2	Cybersecurity.
		17.3	Establish an electricians/installers licensing program (e.g. SAVE program).
18	Measure reliability in terms of power quality.	18.1	Develop statewide standards that also meet MISO standards.