

Economic Development and Energy Careers – Working Group Meeting #3

April 26, 2016; 10:00 am - 12:00 pm

Meeting Summary¹

I. Meeting Objectives

- To present to working group members results from the SWOT analysis prepared by TEConomy Partners.
- To obtain feedback and refine the vision statement and guiding principles for the energy plan.

II. Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis Presentation

TEConomy Partners presented preliminary results of the SWOT analysis performed for lowa's energy industry. Discussions during the meeting focused on the results of the SWOT as they related to the Economic Development and Energy Careers Working Group.

Working group members provided feedback on the preliminary results which will be incorporated in the final report for the SWOT analysis. All materials will be posted on the website at www.iowaenergyplan.org.

III. Vision Statement Discussion

During the meetings facilitators presented a draft vision statement for the lowa Energy Plan to working group members and requested feedback on this statement.

The vision statement is meant to serve as the collective understanding of the ideal future of lowa in terms of its energy use and resources. It establishes a tone for the plan and the planning process. The entire plan would then start with and relate back to the vision. The vision should be general and does not need to include specifics.

A) Draft Vision Statement Presented:

The Iowa Energy Plan will set out Iowa's priorities to ensure energy affordability, reliability, and predictability for all through encouraging economic

¹ Note: This summary compiles thoughts and ideas shared by members of the four working groups for the energy plan: Economic Development and Energy Careers, Iowa's Energy Resources, Energy Efficiency and Conservation, and Transportation and Infrastructure.

growth and improve lowa's environment for years to come. The plan will leverage the state's renewable energy successes and promote innovation.

B) Feedback Received from Working Group Members:

The ideas and items included below represent a high level summary of the feedback received from working group members as interpreted by multiple staff assisting in the note-taking process. They are not to be construed as verbatim comments from any working group member.

A revised version of the vision statement will be presented during the fourth meeting of the working group on May 24, 2016.

- The vision should be bold and comprehensive.
- Clarify whether this a vision statement for lowa's energy future or for the lowa Energy Plan.
- Think about the question "How does low abecome a center for new energy?"
 - o lowa can be a test bed or center for innovation in the energy space
 - o lowa should be a leader in the energy space.
- The vision statement currently seems focused on renewable resources.
- It is not clear whether the vision statement includes all forms of energy and not just electricity.
- The vision statement is missing a timeframe.
- The wording of second sentence can be made more succinct.
- · What level of detail is needed in a vision?
- Suggest using "lowa will" as have opposed to "the plan will."
- Instead of "setting priorities" the vision statement should be framed as "making a commitment."
 - Change "set out" to "establish" priorities
- Consider adding "consistency and standardization".
- The two sentences seem to contradict each other.
 - Affordability may not be possible if newer, more expensive technologies are advanced.
 - Perhaps we are looking for "flexibility/diversity" instead.
 - There is tension in affordability and reliability how can this be balanced?
- Consider including the words "promoting" as well as "energy security" as a means of providing safety.
 - Safety or security could also be included in the guiding principles.
- Account for the non-energy benefits of renewable resources.
 - Should this be accounted for as part of the vision or as part of the guiding principles?
- Diversity of assets (wind, workforce, ethanol) should be mentioned as a means to mitigate risk.
- The last sentence seems instructive (guiding) instead of visionary, it is looking at the past instead of the future. It also needs more clarity.

- The past successes are due to leadership. Emphasize continued leadership in this sense and consider using the word "leadership" instead of "past successes."
- Phrase the sentence in a way that it builds momentum using the strengths of today to build a future.
- Consider looking not just at past renewable energy successes but also at ethanol successes, and leverage this to other forms of energy and fuels.
- o "Building upon" language resonates well we are gaining momentum as a leader
- Is "renewable energy" too specific?
 - Need to make it clear that this includes all sources of energy
 - Should other resources be considered as well in the vision? (energy efficiency and ethanol were mentioned.)
- What does "improve lowa's environment for years to come" mean?
 - Environmental stewardship and responsibility should be considered in the vision statement.
 - Suggestion to include language on reducing greenhouse gases or carbon emissions, and providing cleaner air.
- How can low maintain leadership and grow at the same time in terms of economic development?
 - o What is the difference between economic development and economic growth?
 - o Build upon lowa's world-class manufacturing as a source of economic growth.
- The vision statement is missing some language around domestic energy versus imported energy:
 - O What level of in-state generation can we get to?
 - o Is importing energy inherently a bad thing for the state?
- Efficient use of resources is a goal of the Iowa Department of Transportation.
- Promoting education should be part of the vision.
- Informed decisions need to be an outcome of process.
- lowa is at a crossroads (location and leadership).

During the meetings facilitators presented draft guiding principles for the lowa energy plan to working group members and requested feedback on these principles.

² The leadership team for the Iowa Energy Plan consists of Lt. Governor Reynolds, Iowa Partnership on Economic Progress (IPEP) members, Iowa Economic Development Authority (IEDA) and Iowa Department of Transportation (DOT) representatives.

A) Draft Guiding Principles:

- Expand economic opportunities for lowa.
- Maintain reliable and affordable energy for all of lowa's residents and businesses.
- Ensure equity in access to energy programs, technologies, and resources.
- Protect and enhance lowa's environment and natural resources.
- Establish framework for predictable decision making.

B) Feedback Received from Working Group Meetings:

The ideas and items included below represent a high level summary of the feedback received from working group members as interpreted by multiple staff assisting in the note-taking process. They are not to be construed as verbatim comments from any working group member.

A revised version of the guiding principles will be presented during the fourth meeting of the working group on May 24, 2016.

- Maintaining and enhancing lowa's energy delivery systems (including transportation) is not mentioned in the guiding principles. Infrastructure needs to be reflected as well as assets.
- Decision making should be based on data and not opinions.
- Transparency should be mentioned and addressed in the guiding principles.
- Include guidance that addresses national and state security (decreasing dependence on foreign oil and use of vehicles during states of emergency).
- Add language around "promoting best practice utilization".
- Recommend framing the principle as "for lowans" as opposed to "for lowa."
- · Add resilience, education, and leadership
- Affordability should be more prominent
- Energy Efficiency is not clearly established or called out in the guiding principles.
- Metrics should be part of the guiding principles and objectives.
- "Expand economic opportunities for Iowa."
 - o Are R&D growth and innovation covered under this guiding principle?
 - Clarify that economic opportunities should be expanded in all areas of the state rural and urban.
 - Education should be covered under this principle.
 - o Consider replacing "lowa" with "lowa's economy" or "our energy portfolio."
- "Maintain reliable and affordable energy for all of lowa's residents and businesses."
 - o "Maintain" may not convey change. Suggest using the word, "expand" instead.
 - Alternatively, change the word "maintain" to "provide."

- "Ensure equity in access to energy programs, technologies, and resources."
 - The word "equity" can be read in many different ways. Think about equality of opportunities, not necessarily outcomes.
 - o The word "equity" could be removed or reworded.
 - Need to make sure this captures "overcoming barriers."
 - There is a difference between urban and rural areas.
 - o Is it equity balance or impartiality?
- "Protect and enhance lowa's environment and natural resources."
 - o Eliminate "lowa's environment" as the environment transcends lowa's border.
 - This principle should cover stewardship, sustainability, and personal responsibility for future generations of lowans.
 - o Carbon reduction should be mentioned.
 - This principle could reflect energy efficiency and conservation. Alternatively, these items can be covered as strategies.
 - o As it is worded, this seems to be more focused on conservation than efficiency.
 - Shouldn't we promote efficiency first?
 - Wastefulness should be addressed by this principle adding personal responsibility and stewardship would help.
 - "Reduce" or "efficiently use energy" might be better.
- "Establish framework for predictable decision making."
 - o This principle is difficult to understand and needs to be clarified or reworded.
 - o "Establish" seems to imply that there is not one today.
 - Support informed and wise data driven guidelines for predictable decision making (use of guidelines vs. framework.)
 - o Timely and data-driven decision making is critical.
 - Consider using the word "planning" instead of "decision making."
 - We need a framework for what "predictable" that means policies that are already in place, to allow for long-term consistency; programs and incentives established, etc.
 - Is this a Guiding Principle or more of an action item? Conversely, is it more appropriate to move to the vision?
 - Transparency should be an important part of the decision making.

A) Comments and Questions Received from the Public

- Comment on Vision Statement: I would prefer clean energy to be specified rather than renewable energy, in the final phrase.
- Comment on Vision Statement: Possibly omit the last sentence. "...ensure cleanest possible energy infrastructure with regards to encouraging lowa's economic growth while improving lowa's environment for years to come."
- (On the guiding principles) Your first bullet point is not factually correct!
- Comment on 4th Guiding Principle: the advocacy group EcoModernism.org looks to minimize urban areas to enhance & preserve the environment and natural resources.



Energy Efficiency and Conservation – Working Group Meeting #3

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

Meeting Summary¹

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II. Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis Presentation

TEConomy Partners presented preliminary results of the SWOT analysis performed for lowa's energy industry. Discussions during the meeting focused on the results of the SWOT as they related to the Economic Development and Energy Careers Working Group.

Working group members provided feedback on the preliminary results which will be incorporated in the final report for the SWOT analysis. All materials will be posted on the website at www.iowaenergyplan.org.

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A. Draft Vision Statement Presented:

The lowa Energy Plan will set out lowa's priorities to ensure energy affordability, reliability, and predictability for all through encouraging economic growth and improve lowa's environment for years to come. The plan will leverage the state's renewable energy successes and promote innovation.

¹ Note: This summary compiles thoughts and ideas shared by members of the four working groups for the energy plan: Economic Development and Energy Careers, Iowa's Energy Resources, Energy Efficiency and Conservation, and Transportation and Infrastructure.

B. Feedback Received from Working Group Members:

The ideas and items included below represent a high level summary of the feedback received from working group members as interpreted by multiple staff assisting in the note-taking process. They are not to be construed as verbatim comments from any working group member.

A revised version of the vision statement will be presented during the fourth meeting of the working group on May 24, 2016.

- The vision should be bold and comprehensive.
- Clarify whether this a vision statement for lowa's energy future or for the lowa Energy Plan.
- Think about the question "How does low become a center for new energy?"
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A revised version of the guiding principles will be presented during the fourth meeting of the working group on May 24, 2016.

- Maintaining and enhancing lowa's energy delivery systems (including transportation) is not mentioned in the guiding principles. Infrastructure needs to be reflected as well as assets.
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- The word "equity" can be read in many different ways. Think about equality of opportunities, not necessarily outcomes.
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V. Comments and Questions Received from the Public

- Comment: assessments of EROI (fiscal) & ERoEI (efficiency) should accompany each
 project: not necessarily a months-long assessment but merely a fairly accurate back-ofthe-envelope numbers. I'm all for utilizing lowa based R&D, but if it amounts to cherrypicking local tech with poor EROI (dependent on subsidies) or a near break-even on
 EROEI (jobs creator with little other benefit) then I would question the wisdom of that
 specific project. Including EROI & EroEI numbers could help eliminate lobbyist
 misinformation. This would necessitate a baseline for efficiency, emissions, etc.
- The advocacy group EcoModernism.org looks to minimize urban areas to enhance & preserve the environment and natural resources.
- The Technical Reference Manual (TRM) collaboration example included stakeholders beyond utilities (e.g. OCA and environmental groups)
- I think that another strength [of lowa's] is engaged stakeholders beyond utilities. That includes program vendors, environmental groups, Americorp, a strong consumer advocate, Winneshiek Energy District, etc.
- The lowa Utilities Board has rejected petitions from industrial companies to opt-out in past energy efficiency dockets. The Board has previously stated: "all utility customers, even those who do not directly participate in energy efficiency programs, benefit from the avoided cost savings that are the primary goal of energy efficiency programs." In addition, the Board stated: "lowa has a strong public policy supporting and developing energy efficiency and the Board will not undermine that public policy by exempting certain customers from the energy efficiency paradigms."
- I think an opportunity for the Energy Efficiency and Conservation working group is to look at how it can help integrate large amounts of renewable generation. As our grid has more wind, energy efficiency will have increased importance in making that possible and thinking about how to harness energy efficiency to do that is an opportunity.
- I think that the vision statement last sentence should include energy efficiency. "The plan will leverage the state's renewable energy and energy efficiency successes and promote innovation."



Iowa's Energy Resources – Working Group Meeting #3

April 28, 2016; 1:00 pm – 3:00 pm

Meeting Summary¹

I. Meeting Objectives

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II. Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis Presentation

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B. Feedback Received from Working Group Members:

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A revised version of the vision statement will be presented during the fourth meeting of the working group on May 26, 2016.

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- Think about the question "How does lowa become a center for new energy?"
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 - We need a framework for what "predictable" that means policies that are already in place, to allow for long-term consistency; programs and incentives established, etc.
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 - o Transparency should be an important part of the decision making.

V. Comments and Questions Received from the Public

N/A.



Transportation and Infrastructure – Working Group Meeting #3

April 28, 2016; 10:00 am - 12:00 pm

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- Clarify whether this a vision statement for lowa's energy future or for the lowa Energy Plan.
- Think about the question "How does low become a center for new energy?"
 - lowa can be a test bed or center for innovation in the energy space
 - lowa should be a leader in the energy space.
- The vision statement currently seems focused on renewable resources.
- It is not clear whether the vision statement includes all forms of energy and not just electricity.
- The vision statement is missing a timeframe.
- The wording of second sentence can be made more succinct.
- What level of detail is needed in a vision?
- Suggest using "lowa will" as have opposed to "the plan will."
- Instead of "setting priorities" the vision statement should be framed as "making a commitment."
 - o Change "set out" to "establish" priorities
- Consider adding "consistency and standardization".
- The two sentences seem to contradict each other.
 - Affordability may not be possible if newer, more expensive technologies are advanced.
 - Perhaps we are looking for "flexibility/diversity" instead.
 - There is tension in affordability and reliability how can this be balanced?
- Consider including the words "promoting" as well as "energy security" as a means of providing safety.
 - Safety or security could also be included in the guiding principles.
- Account for the non-energy benefits of renewable resources.
 - Should this be accounted for as part of the vision or as part of the guiding principles?
- Diversity of assets (wind, workforce, ethanol) should be mentioned as a means to mitigate risk.
- The last sentence seems instructive (guiding) instead of visionary, it is looking at the past instead of the future. It also needs more clarity.
 - The past successes are due to leadership. Emphasize continued leadership in this sense and consider using the word "leadership" instead of "past successes."

- Phrase the sentence in a way that it builds momentum using the strengths of today to build a future.
- Consider looking not just at past renewable energy successes but also at ethanol successes, and leverage this to other forms of energy and fuels.
- "Building upon" language resonates well we are gaining momentum as a leader
- Is "renewable energy" too specific?
 - Need to make it clear that this includes all sources of energy
 - Should other resources be considered as well in the vision? (energy efficiency and ethanol were mentioned.)
- What does "improve lowa's environment for years to come" mean?
 - Environmental stewardship and responsibility should be considered in the vision statement.
 - Suggestion to include language on reducing greenhouse gases or carbon emissions, and providing cleaner air.
- How can low maintain leadership and grow at the same time in terms of economic development?
 - o What is the difference between economic development and economic growth?
 - o Build upon lowa's world-class manufacturing as a source of economic growth.
- The vision statement is missing some language around domestic energy versus imported energy:
 - o What level of in-state generation can we get to?
 - o Is importing energy inherently a bad thing for the state?
- Efficient use of resources is a goal of the Iowa Department of Transportation.
- Promoting education should be part of the vision.
- Informed decisions need to be an outcome of process.
- lowa is at a crossroads (location and leadership).

During the meetings facilitators presented draft guiding principles for the lowa energy plan to working group members and requested feedback on these principles.

² The leadership team for the Iowa Energy Plan consists of Lt. Governor Reynolds, Iowa Partnership on Economic Progress (IPEP) members, Iowa Economic Development Authority (IEDA) and Iowa Department of Transportation (DOT) representatives.

A. Draft Guiding Principles:

- Expand economic opportunities for lowa.
- Maintain reliable and affordable energy for all of lowa's residents and businesses.
- Ensure equity in access to energy programs, technologies, and resources.
- Protect and enhance lowa's environment and natural resources.
- Establish framework for predictable decision making.

B. Feedback Received from Working Group Meetings:

The ideas and items included below represent a high level summary of the feedback received from working group members as interpreted by multiple staff assisting in the note-taking process. They are not to be construed as verbatim comments from any working group member.

A revised version of the guiding principles will be presented during the fourth meeting of the working group on May 26, 2016.

- Maintaining and enhancing lowa's energy delivery systems (including transportation) is not mentioned in the guiding principles. Infrastructure needs to be reflected as well as assets.
- Decision making should be based on data and not opinions.
- Transparency should be mentioned and addressed in the guiding principles.
- Include guidance that addresses national and state security (decreasing dependence on foreign oil and use of vehicles during states of emergency).
- Add language around "promoting best practice utilization".
- · Recommend framing the principle as "for lowans" as opposed to "for lowa."
- · Add resilience, education, and leadership
- Affordability should be more prominent
- Energy Efficiency is not clearly established or called out in the guiding principles.
- Metrics should be part of the guiding principles and objectives.
- "Expand economic opportunities for lowa."
 - Are R&D growth and innovation covered under this guiding principle?
 - Clarify that economic opportunities should be expanded in all areas of the state rural and urban.
 - Education should be covered under this principle.
 - o Consider replacing "lowa" with "lowa's economy" or "our energy portfolio."
- "Maintain reliable and affordable energy for all of lowa's residents and businesses."
 - "Maintain" may not convey change. Suggest using the word, "expand" instead.
 - Alternatively, change the word "maintain" to "provide."

- "Ensure equity in access to energy programs, technologies, and resources."
 - The word "equity" can be read in many different ways. Think about equality of opportunities, not necessarily outcomes.
 - o The word "equity" could be removed or reworded.
 - Need to make sure this captures "overcoming barriers."
 - There is a difference between urban and rural areas.
 - o Is it equity balance or impartiality?
- "Protect and enhance lowa's environment and natural resources."
 - o Eliminate "lowa's environment" as the environment transcends lowa's border.
 - This principle should cover stewardship, sustainability, and personal responsibility for future generations of lowans.
 - o Carbon reduction should be mentioned.
 - This principle could reflect energy efficiency and conservation. Alternatively, these items can be covered as strategies.
 - o As it is worded, this seems to be more focused on conservation than efficiency.
 - Shouldn't we promote efficiency first?
 - Wastefulness should be addressed by this principle adding personal responsibility and stewardship would help.
 - o "Reduce" or "efficiently use energy" might be better.
- "Establish framework for predictable decision making."
 - This principle is difficult to understand and needs to be clarified or reworded.
 - o "Establish" seems to imply that there is not one today.
 - Support informed and wise data driven guidelines for predictable decision making (use of guidelines vs. framework.)
 - Timely and data-driven decision making is critical.
 - Consider using the word "planning" instead of "decision making."
 - We need a framework for what "predictable" that means policies that are already in place, to allow for long-term consistency; programs and incentives established, etc.
 - Is this a Guiding Principle or more of an action item? Conversely, is it more appropriate to move to the vision?
 - o Transparency should be an important part of the decision making.

V. Comments and Questions Received from the Public

N/A.