

Integrated Resource Plan (IRP) Stakeholder Outreach Meeting

AGENDA ITEMS

- 9:30 a.m. Filing Requirements Workgroup
- Overview of changes to CON Filing Requirements
 - Suggestions received to date for IRP Filing Requirements
- 10:30 a.m. Transmission Workgroup
- Recap of last meeting
 - Review and discuss Forecast Workgroup's proposed scenarios
 - Review Transmission Workgroup's comments summary
 - Review and discuss proposed recommendations
 - Review upcoming dates
- 12:00 p.m. – 1:30 p.m. Break for lunch – on your own
- 1:30 p.m. Renewables and PURPA Workgroup
- Walk through strawman draft
- 3:00 p.m. Environmental Policy Workgroup
- Follow-up items from May 1st meeting
 - Review comments about modeling scenarios
 - Discuss Environmental Scenario
 - Next steps and assignments
- 4:00 p.m. Adjourn

Filing Requirements Workgroup 9:30 a.m.

Workgroup Lead: Cathy Cole
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IRP Filing Requirements Workgroup

Cathy Cole, MPSC

May 24, 2017



Workgroup Scope

- Section 6t(3)... “The Commission shall issue an Order establishing filing requirements, including application and instructions, and filing deadlines for an integrated resource plan filed by an electric utility whose rates are regulated by the Commission.”

Workgroup Scope continued

- Section 6t(4)... “For an electric utility with fewer than 1,000,000 customers in this state whose rates are regulated by the Commission, the Commission may issue an order implementing separate filing requirements, review criteria, and approval standards that differ from those established under subsection (3).”

U-15896 Certificate of Need

- Commission Order dated 5/11/17 approved revisions to the CON filing requirements
 - Additional Filing Announcement requirement
 - Thirty days prior to filing an application
 - Proof of service to parties in last two rate cases and most recent IRP case
 - Include a brief description of the facilities or PPA
 - Any additional information the utility finds relevant
 - Pre-consultation meeting documentation to be filed in the docket

(See May 11, 2017 Order in U-15896 for additional changes approved)

Seeking Input for IRP Filing Requirements

Commission Order in U-15986 dated 5/11/17; P6 -MEC suggests several changes to Section VII.A, which are covered by the IRP process

Provide feedback on requiring these items in IRP application:

- The expected emissions of carbon dioxide and greenhouse gases, particulates, sulfur dioxides, volatile organic compounds, oxides of nitrogen, mercury, and other hazardous air pollutants per year and over the life of any facilities or contracts for the optimal plan for each scenario and an assessment of whether some or all of the anticipated emissions and their anticipated health impacts could be eliminated or reduced through the use of feasible and prudent alternatives.
- An environmental justice analysis that evaluates the impact, including any disproportionate impact, of the proposed facility on environmental justice communities, and any steps that can be taken to reduce or eliminate such impacts for the proposed plan.

Seeking Input for IRP Filing Requirements

Commission Order in U-15986 dated 5/11/17; P7 -MEC suggests several changes to Section VII.A, which are covered by the IRP process

Provide feedback on requiring these items in IRP application:

- Any workpapers used in developing the application and supporting testimony. Such workpapers shall, whenever possible, be provided in electronic format with formulas intact.
- Any modeling input and output files used in developing the application, supporting testimony, and integrated resource plan. Such modeling input and output files shall, whenever possible, be provided in electronic format with formulas intact. The applicant shall also identify each modeling program used, and provide information for how interested parties can obtain access to such modeling program;
 - or as similarly proposed by another stakeholder –
- If a utility utilizes proprietary software and data, then the utility needs to provide a way to make the materials accessible to parties in the case, such as by providing laptops with the proprietary models loaded onto them as well as providing any accompanying site licenses.

Seeking Input for IRP Filing Requirements

Commission Order in U-15986 dated 5/11/17; P10 -ABATE suggests NPV analysis

Provide feedback on requiring these items in IRP application:

- ABATE suggests that an applicant be required to provide a valid net present value revenue requirement comparison of its proposal and reasonable alternatives over the shorter of the term of the life of the transaction or 20 years. This analysis should include a comparison of net present value on a yearly basis. This analysis will provide valuable information regarding an applicant's planning and the prudence of its proposal relevant to alternatives.
- An applicant's analysis should discuss any differences between its short term capacity price curve in the application and the short term capacity price curve in its last PSCR proceeding.
- An applicant's analysis should identify when its proposal is no longer preferable to alternatives, considering factors including but not limited to capital costs, changes in market costs, and changes in capacity market prices.
- An applicant's analysis should also describe the impact of the applicant's proposal on rates in its service territory for each rate class over five years, using the rate design most recently approved for the applicant by the Commission.

Seeking Input on Stakeholder Engagement

Please provide feedback on Arkansas's stakeholder engagement:

Arkansas Guidelines: http://www.apscservices.info/pdf/06/06-028-r_57_1.pdf

- Each utility shall organize and facilitate meetings of a Stakeholder Committee for resource planning purposes.
- The Stakeholder Committee should be broadly representative of retail and wholesale customers, independent power suppliers, marketers, and other interested entities in the service area.
- The Stakeholders shall develop their own rules and procedures.
- Stakeholders should review utility objectives, assumptions, and estimated needs early in the planning cycle.
- The utility shall make a good faith effort to properly inform and respond to the Stakeholder Committee.

Seeking Input on Stakeholder Engagement

Arkansas guidelines continued:

- A Report of the Stakeholder Committee should be included with the Resource Plan submittal.
- Stakeholders and Staff may also submit comments to the Commission on each Resource Plan after it has been submitted by the utility.
- Such comments should be taken into consideration by the utility in its preparation efforts and decisions concerning subsequent applications, as well as in its next planning cycle.
- If comments concerning the process and results warrant, the Commission may require the utility to reevaluate and resubmit its Resource Plan for the current planning cycle to address concerns raised in the comment.

Schedule

- Section 6t(3) requires that each rate-regulated utility file its first IRP by April 20, 2019.
 - Stakeholders have requested to have some minimum amount of time between utility IRP filings. How much time in-between rate regulated utility IRP filings would be appropriate? Four weeks? Eight weeks?
 - Would each rate-regulated utility attempt to project to the best of its ability, the month or the quarter in which it expects to file its first IRP case?
 - Staff will take all of the feedback received and attempt to develop a draft schedule for the first IRP cases with the rate-regulated utilities.

Seeking Input for IRP Filing Requirements

Utilities with fewer than 1,000,000 customers

- Section 6t(4) provides that the Commission may issue an order implementing separate filing requirements, review criteria, and approval standards for utilities with fewer than 1,000,000 customers.
 - Would it be appropriate to waive the IRP filing requirement for a small utility that is a full requirements customer of another utility in this state?
 - Would it be appropriate to allow smaller utilities in the same zone (such as the upper peninsula) to work together, with or without Staff's assistance, and submit a joint IRP covering more than its own utility service territory?
 - What other requirement might be altered or waived?
 - Different scenarios and reduced sensitivities?
 - Unique EWR, DR, EE requirements?

Seeking Input for IRP Filing Requirements

Section 6t(5) – An integrated resource plan shall include all of the following:
(a) through (o)

- Input on specific requirements to include with an integrated resource plan will be sought from the other IRP workgroups including what is listed for (a) through (o).
 - If not currently participating in the other IRP workgroups, stakeholders are encouraged to provide feedback in this forum and it will be circulated among any other appropriate workgroup.
- Is there anything missing from that list that should be added?
- Any specifics that you would like to propose?

Section 6t(6) deals with RFPs

- Any specific filing requirements related to RFPs?

Section 6t(11) deals with approval of costs

- Any specific filing requirements related cost estimates submitted as part of an IRP filing?

Seeking Input for IRP Filing Requirements

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Section 6t(11) deals with approval of costs

- Any specific filing requirements related cost estimates submitted as part of an IRP filing?

Risk Assessment

- Stakeholders have requested discussing a requirement for a risk analysis to be submitted with an IRP application.
 - Do any stakeholders have a proposal for specifications for a risk analysis?
- On what other potential Filing Requirements related items would stakeholders like to provide input?

Workgroup Assignments

- Please provide your input:
 - In writing to colec1@michigan.gov by **June 8**
 - In person on June 12, Contact Cathy to be added to the agenda
- Next steps
 - Meet on June 12
 - Develop a first rough draft of filing requirements
 - Circulate rough draft informally to this workgroup for comments
 - Likely, revise the draft and repeat

Transmission Workgroup

10:30 a.m.

Workgroup Lead: Naomi Simpson
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Transmission Workgroup: Including Transmission in IRP

Today's Agenda

- Recap
- Discuss Forecasting workgroup's proposed scenarios
- Summary of comments – general themes
- Discuss proposed recommendations
- Written comments by COB June 2nd
- Final draft distribution on June 9th
- Final edits due by COB June 12th & workgroup conference call
- Submission to Staff, June 19th

Proposed Scenarios for Zone 7

Business as Usual

The existing generation fleet is largely unchanged apart from new units planned with firm certainty or under construction. No carbon regulations are modeled, though some reductions are expected due to age-related coal retirements and renewable additions driven by renewable portfolio standards and goals as well as economics.

- Natural gas prices remain low due to increased well productivity and supply chain efficiencies.
- Footprint wide, demand and energy growth rates remain at low levels with no notable drivers of higher growth; however, as a result of low natural gas prices, industrial production along the Gulf Coast increases.
- Low natural gas prices and low economic growth reduce the economic viability of alternative technologies.
- Thermal generation retirements are driven by unit age-limits and announced retirements.
- Specific new units are modeled if under construction or with regulatory approval (CONs).
- Tax credits for renewables continue until 2022 to model existing policy.
- Technology costs remain stable and escalate at low to moderate escalation rates.

Proposed Scenarios for Zone 7, cont.

Environmental Policy

Carbon regulations targeting a **XX%** reduction (by mass for existing and new sources) from **X** year to **Y** year across all aggregated unit outputs are enacted driving some coal retirements and an increase in natural gas reliance. Increased renewable additions are driven by renewable portfolio standards and goals, economics, and business practices to meet carbon regulations.

- Demand and energy growth rates are modeled at a level equivalent to a 50/50 forecast.
- Natural gas prices are consistent with industry long-term reference forecasts.
- Current demand response, energy efficiency, and distributed generation programs remain in place and grow to help comply with additional regulations.
- Non-nuclear, non-coal generators will be retired in the year the age limit is reached and driven by announced retirements. Coal units will be retired reflecting economics of carbon regulations. Nuclear units are assumed to have license renewals granted and remain online.
- Specific new units are modeled if under construction or with regulatory approval (CONs).
- Tax credits for renewables continue until 2022 to model existing policy.
- To be developed by Environmental group.

Proposed Scenarios for Zone 7, cont.

Accelerated Emerging Technologies

A robust economy drives technological advancement and economies of scale resulting in a greater potential for demand response, energy efficiency, and utility-scale and customer-level distributed generation as well as lower capital cost for renewables reflected in the maturity cost curves. No carbon reductions are modeled, but some reductions occur due to higher levels of renewables, demand response, and energy efficiency.

- Natural gas prices are high due to increased demand.
- Robust economy leads to increased demand & energy consumption. Footprint wide, demand and energy growth rates are high due to a robust economy; however, as a result of high natural gas prices, industrial production along the Gulf Coast decreases.
- A robust economy drives technological advancement and economies of scale resulting in a greater potential for demand response, energy efficiency, and distributed generation as well as lower capital cost for renewables.
- Non-nuclear generators will be retired in the year the age limit is reached and driven by announced retirements. Nuclear units are assumed to have license renewals granted and remain online.
- Specific new units are modeled if under construction or with regulatory approval (CONs).
- Tax credits for renewables continue until 2022 to model existing policy.

Proposed Scenarios for Zone 2

Business as Usual

The existing generation fleet is largely unchanged apart from new units planned with firm certainty or under construction. No carbon regulations are modeled, though some reductions are expected due to age-related coal retirements and renewable additions driven by renewable portfolio standards and goals as well as economics.

- Natural gas prices remain low due to increased well productivity and supply chain efficiencies.
- Footprint wide, demand and energy growth rates remain at low levels with no notable drivers of higher growth; however, as a result of low natural gas prices, industrial production along the Gulf Coast increases.
- Low natural gas prices and low economic growth reduce the economic viability of alternative technologies.
- Thermal generation retirements are driven by unit age-limits and announced retirements.
- Specific new units are modeled if under construction or with regulatory approval (CONs).
- Tax credits for renewables continue until 2022 to model existing policy.
- Technology costs remain stable and escalate at low to moderate escalation rates.

Proposed Scenarios for Zone 2, cont.

High Market Price Variant

An increase in economic activity drives higher than expected energy market prices. The existing generation fleet is largely unchanged apart from new units planned with firm certainty or under construction. No carbon regulations are modeled, though some reductions are expected due to age-related coal retirements and renewable additions driven by renewable portfolio standards and goals as well as economics.

- Fuel Prices rising due to increased economic activity / electric demand.
- Footprint wide, demand and energy growth rates moderate/ robust with notable drivers of higher growth; however,
- Moderate/high natural gas prices and moderate/robust economic growth increase the economic viability of alternative technologies.
- Thermal generation retirements are driven by unit age-limits and announced retirements.
- Specific new units are modeled if under construction or with regulatory approval (CONs).
- Tax credits for renewables continue until 2022 to model existing policy.
- Technology costs remain stable and escalate at low to moderate escalation rates.

Proposed Scenarios for Zone 2, cont.

Accelerated Emerging Technologies

A robust economy drives technological advancement and economies of scale resulting in a greater potential for demand response, energy efficiency, and utility-scale and customer-level distributed generation as well as lower capital cost for renewables reflected in the maturity cost curves. No carbon reductions are modeled, but some reductions occur due to higher levels of renewables, demand response, and energy efficiency.

- Natural gas prices are high due to increased demand.
- Robust economy leads to increased demand & energy consumption. Footprint wide, demand and energy growth rates are high due to a robust economy; however, as a result of high natural gas prices, industrial production along the Gulf Coast decreases.
- A robust economy drives technological advancement and economies of scale resulting in a greater potential for demand response, energy efficiency, and distributed generation as well as lower capital cost for renewables.
- Non-nuclear generators will be retired in the year the age limit is reached and driven by announced retirements. Nuclear units are assumed to have license renewals granted and remain online.
- Specific new units are modeled if under construction or with regulatory approval (CONs).
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Summary of Comments – General Themes

General Themes – Stakeholder comments fell into five general categories:

- Various perspectives on stakeholder engagement. Some workgroup members believed that stakeholder engagement was a necessity while others felt that it should be at the discretion of the utility responsible for conducting the IRP.
- All commenters generally agreed that modeling should reflect system constraints.
- Various perspectives on base case specificity. Some commenters felt that utilities should be able to determine their own base case specific to that utility while others felt that there was benefit in having a consistent base case among all utilities in effort to provide a Michigan-wide consistency and perspective.
- Mixed views on how many scenarios is appropriate for consideration. Some mentioned that three scenarios are plenty and others feel there are additional aspects that should be modeled.
- Many commenters addressed the need to consider all resources with equal merit.

Proposed Recommendations

- Modeling scenarios should consider system constraints such as Import/Export limits and engage ISO/TOs to understand the most current system topology.
- Establish a base case scenario for all utilities with the ability to seek approval for minor changes. Establish an approval or notification process to provide for flexibility for changes to minor characteristics of a base case. For example, if a particular utility has information that supports a different growth rate for its service territory, it may make sense to run a base case with that growth rate.

Proposed Recommendations, cont.

- A minimum of three scenarios should be specified. The mandatory scenarios should be constructed to provide a base case and then bookend other reasonable futures. These futures should be the extreme in the spectrum of reasonableness. Utilities will likely consider additional scenarios that will fall within this range. Potential futures that could impact transmission include high retirement cases (either all coal or units over 50 years old), carbon pricing, increased RPS, and/or some unknown environmental mandate that leads to no additional central station power being built.

Proposed Recommendations, cont.

- Establish a requirement that regulated utilities are to engage stakeholders throughout the IRP process. It is critical that this requirement is designed with flexibility to allow for utilities to address stakeholder engagement in a manner that best fits the individual companies. Best practices from multiple sources indicate that stakeholder engagement is critical to integrated resource planning (BWL, I&M, Northwest Counsel). In addition, PA 341 Section 6t identifies the allowance for alternative proposals thereby highlighting the need to consider the wide array of resources available to the modern electric grid.

Proposed Recommendations, cont.

- Resource options that require significant transmission network upgrades should be accounted for in each specific alternative and embedded in the true capital cost of a specific generation or other solution to serve load. This allows for resource options to be considered based upon a more inclusive total cost.

Transmission Workgroup Key Dates

- Written comments by COB June 2nd
- Final draft distribution on June 9th
- Final edits due by COB June 12th & workgroup conference call
- June 19th – Final Transmission Workgroup recommendations submitted to Staff

Contact Information

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Integrated Resource Plan (IRP) Stakeholder Outreach Meeting

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 - Discuss Environmental Scenario
 - Next steps and assignments
- 4:00 p.m. Adjourn

Renewables and PURPA Workgroup 1:30 p.m.

Workgroup Lead: Jesse Harlow
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Renewables and PURPA in IRP

Jesse Harlow

Agenda

- Walk through strawman draft outline

Environmental Policy Workgroup 3:00 p.m.

Workgroup Lead: Breanna Bukowski
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Agenda

- Follow-up items from the May 1st meeting
- Review comments about modeling scenarios
- Discuss Environmental Scenario
- Next step and assignments

Next Steps

- June 12 – Stakeholder outreach meeting
- June 19 – Workgroup recommendations due
- July 12 – Staff's drafted strawman posted to website
- Late July – written comments due from stakeholders on staff's draft strawman proposal
- July 31 – Order initiating formal IRP docket