## Indianapolis Power and Light Company - Feedback Response Table From July 18, 2014 IRP Public Advisory Meeting

	Demand Side	Management	
_	Stakeholder Question or Comment	IPL's Response	
1	Slide 15: Please provide the EnerNOC study of DSM potential when it is available.	When available, IPL will post the Applied Energy Group (formerly EnerNOC) study on its IRP webpage. IPL will also send an email notification that the study has been posted.	1
2	Slide 15: Please provide the assumptions and workpapers used by EnerNOC and IPL in developing these estimates.	Applied Energy will provide a memo that summarizes the results of their modeling and forecast. For purposes of this study, the consultant is starting with the market potential study (MPS) that was completed in 2012. Certain inputs will be updated to reflect known changes that have occurred since the original MPS was completed (the opt-out of certain large customers and LED lamps decreasing in cost more quickly than originally assumed for example). Information on changes in assumptions and model updates will be provided along with the DSM potential on the IRP webpage when available.	2
3	Slide 26: Why is the Residential New Construction program being canceled? Please provide any analysis used in making this determination.	The Residential New Construction program is not being proposed for the 2015/2016 DSM plan because it is not cost effective in part, due to limited participation. For analysis and discussion please see IPL's filing in Cause No. 44497. John Haselden's testimony in particular addresses this issue on page 10.	3
4	Slide 28: Please provide the projected DSM energy savings with and without the large customer "opt-out".	The forecast for 2014 was made prior to the passage of Senate Enrolled Act 340 and IPL has not made an adjustment for the impact on EE due to some customers having opted out for the final 6 months of 2014. In IPL's recent request for approval of Cause No. 44497, IPL estimated that the average annual energy savings for 2015-2017 for the Business Prescriptive and Business Custom programs would be reduced by about 20% (or about 19,800 MWH) as a result of customer opt-outs (Petitioners Exhibit ZE-1; page 4). The total EE forecast gross energy savings with and without consideration of opt-out would therefore (respectively) be as follows:  Forecasted Savings (MWH)  Planning Year 2015 2016 2017  With Opt-Out 159,248 163,890 167,834  Without Opt Out 179,048 183,690 187,634	4
5	Slide 30: Did the Company factor in additional large customer opt-outs in the future? If not, these should be a factor in projections of DSM savings.	As additional information becomes available, IPL will consider including an assumption for additional customer opt-outs. At this point, the magnitude of additional customer opt-outs is indefinite and thus not included in this forecast. In addition, some of the opted-out customers will continue to pursue incremental energy efficiency opportunities that make sense for their circumstances. This will mitigate the impact of opt-outs on DSM related load reductions.	5

	Renewables/	Environmental
	Stakeholder Question or Comment	IPL's Response
1	What is IPL doing to comply with the new EPA Rules for existing power plants? Indiana's Energizing Indiana plan has been discontinued by our elected officials and it seems like Indiana is running from the reality of the urgency to reduce the CO2 pollution that we are emitting into our environment in order to mitigate climate change. How can Indiana and IPL continue business as usual when it is contributing to the destruction of the planet that we live on and saying we can't do anything about it because we are not willing to admit the truth and start working together to find solutions. It is time for Indiana and IPL to be responsible stewards of our earth. So my question is WHATS THE PLAN?	

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	Renewables/ Environmental		
	Stakeholder Question or Comment	IPL's Response	<u>L</u> .
2	It would go a long way toward restoring confidence in IPL's reputation as a socially responsible company if you included a robust treatment of climate change in your IRP modeling. In your Feedback Reponse Table from Meeting #1, you stated carbon price and/or CO2 emission limits may serve as "a proxy" for impacts of climate change. However, carbon price and/or CO2 emission limits do not fully capture the impacts of climate change. The IURC requires IPL to address concerns raised by the public in its plan. I request IPL to specifically to use predictions of a sharp increase in extreme weather events in it's weather model. More importantly, from a faith perspective, I request IPL to add the social costs of climate change to its costs for burning fossil fuels. Finally, I request IPL create a scenario which shows the possibility of replacing all coal burning units with renewables much sooner than in current projections.	At the third IRP Public Advisory Meeting, IPL will present additional CO2 scenarios, along with an initial assessment of how IPL can comply with the EPA's Proposed Clean Power Plan goals. While there is certainly room for disagreement as to what level of CO2 reduction or carbon price appropriately captures the projected costs of climate change, from an IRP modeling perspective, limiting CO2 emission limits via either a carbon price or a reduction target is the accepted industry practice for reflecting climate change impacts inclusive of damage associated with severe weather impacts as well as other "social" costs. IPL's IRP modeling process includes weather averages based on a rolling 30-year period. Concerning the modeling of more extreme weather events, if such patterns became persistent rather than anomalies, they will be reflected in the 30-year weather averages. Finally, use of renewable generation as a direct replacement for all coal-fired generation was demonstrated in the first Public Advisory Meeting as presenting significant reliability challenges due, in large part, to the intermittency of production from such sources.	2
3	Slide 17: Please provide the estimated compliance costs by unit, as they become available.	IPL will provide non confidential compliance cost assumptions at the next stakeholder meeting. Confidential information will be available to those who have executed the appropriate Non-Disclosure Agreement with IPL.	3
4	Slide 18: Are there are any state policies or incentives that would facilitate more distributed generation from IPL? Please describe.	There are certain state tax provisions that exempt certain renewable distributed resources from property taxes.  From time to time, the state Office of Energy and Defense (OED) administers grants for funding distributed generation. See the OED website at: http://www.in.gov/oed/index.htm. To the extent state policies and incentives subsidize such projects, more distributed resources would be present in our service territory. To date, the grants available have not been large enough to encourage a market transformation.	4
5	Slide 52: Please provide updates on how the EPA Clean Power Plan is being incorporated into the IPL base case (as they become available).	The analysis is currently underway and the results will be presented at the third IRP Public Advisory Meeting.	5
6	Slide 52: Did the Company assume that existing wind would not be available through a PPA?	IPL's IRP modeling assumption for additional wind was based on construction of new wind resources. This does not imply that IPL will not consider PPAs for wind resources, either existing or new, if it determines that wind is a desirable resource addition for its customers.	6
7	Slide 52: Did the Company assume that current transmission constraints for delivery of wind would remain for the 20-year analysis period?	No. In the modeling, IPL assumed that new transmission would be built by 2018 to relieve transmission congestion.	7
8	Slide 54: Will all future environmental compliance costs be incorporated into this analysis, including CCR, ELG, 316(b), and CSAPR?	Yes.	8
9	Slide 54: Will the Company model the potential for a lowered ozone standard mentioned in the first IRP meeting (slide 73) including possible need for Selective Catalytic Reduction (SCR) retrofits?	Yes. The possibility of additional investments to comply with future lowered ozone standards will be incorporated into the Waster Water filing analysis.	9
10	The Company should provide environmental compliance cost assumptions for all potential rules in order to allow for stakeholder input.	IPL will provide compliance cost assumptions at the next stakeholder meeting. Any confidential information will be available to those who have executed the appropriate Non-Disclosure Agreement with IPL.	10
11	The base case should include environmental compliance costs with all proposed and future regulations, including- at the very least—sensitivities for more stringent rules (e.g. stricter ozone standards).	Those will be included in the base case as appropriate. The environmental compliance cost sensitivities will be addressed as part of the Waste Water filing analysis.	11
12	The updated modeling should allow for incorporation of existing resources and assume improvements to transmission that would facilitate access to wind.	While IPL's IRP modeling assumption for additional wind was based on construction of new wind resources, this does not imply that IPL will not consider PPAs for wind resources, either existing or new, if it determines that wind is a desirable resource addition for its customers. We believe that the new build cost represented in the modeling provides a reasonable proxy for costs associated with acquiring wind resources via a PPA. In the modeling, IPL assumed that new transmission would be built by 2018 to relieve transmission congestion and facilitate access to wind energy.	12

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13	nttp://www.ncgreenpower.org. Although not all the elements of the NC program may be appropriate for	Thank you for bringing the NC program to our attention. Based on both internal conversations and external input, IPL has recently begun a process to evaluate additional program possibilities that might supplement our current Green Power Option. While the IPL Green Power program has been relatively successful with over 4,500 customers, we realize that providing customers with other ways to participate in the renewables market might be appropriate. We are just beginning to research this topic and will share our thinking with key stakeholders as we begin to develop some possible approaches.	13

	Modeling		
_	Stakeholder Question or Comment	IPL's Response	
1	Slide 54: Please provide inputs and assumptions for the assessment of the Big 5 units.	IPL expects to file the Waste Water case with the Commission before the third IRP Public Advisory Meeting. We intend to present the results of the analysis including key inputs and assumptions at that meeting.	1
2	Slide 54: Please provide the Company's current plan for NPDES investments, including types of equipment needed and year of installation (by unit).	IPL expects to file the Waste Water case with the Commission before the third IRP Public Advisory Meeting. We intend to present the results of the analysis at that meeting.	2
3	Slide 54: Will the Company make the results of the assessment available before the final IRP is presented?	IPL expects to file the Waste Water case with the Commission before the third IRP Public Advisory Meeting. We intend to present the results of the analysis at that meeting.	3
4	Slide 61: Will the assessment of the Big 5 coal units determine unit retirement assumptions in the expansion plans?	Yes.	4
5	Slide 61: What replacement alternatives are assumed if any of the Big 5 units retire?	For purposes of developing the Waste Water compliance plan, IPL is conducting a life cycle analysis for the Big 5 coal units. As part of that analysis, alternatives to continued operation of the Big 5 units with coal will include: interim market capacity and energy purchases, refueling with gas, and replacement with CCGTs. These alternatives represent current low cost replacement alternatives. Changes in market drivers between now and the time that IPL is faced with the retirement decision for these units could certainly result in different alternatives, including wind and solar, as the best replacement alternatives.	5
6	Slide 61: What sensitivities will Ventyx model for the Big 5 assessment?	The Big 5 assessment will include high and low natural gas prices, alternative CO2 scenarios, and a range of environmental compliance costs for NPDES, CCR, 316(b), and NAAQS.	6
7	Slide 62: Are unit retirements going to vary by scenario in the next round of modeling?	Alternative retirement dates for the Big 5 units will be evaluated as part of Waste Water filing analysis. We will investigate incorporating alternate retirement dates for the four scenarios in the IRP modeling. It is expected that the Waste Water filing results will show that under certain scenarios earlier retirement of coal units will be the lowest cost option for customers.	7
8	The updated modeling should allow for unit retirements to change with each scenario instead of fixing unit retirements in all four scenarios.	Alternative retirement dates for the Big 5 units will be evaluated as part of Waste Water filing analysis. We will consider incorporating alternate retirement dates for the four scenarios in the IRP modeling as well.	8
9	The Company should provide results of the Big 5 assessment before the final IRP presentation in order to allow for stakeholder input.	IPL expects to file the Waste Water case with the Commission before the third IRP Public Advisory Meeting. We intend to present the results of the Big 5 assessment at the next Stakeholder meeting. We will send an email notice to IRP Public Advisory Meeting participants when the Waste Water case has been filed with the Commission.	9
10	The updated modeling should treat off-system sales revenues as they are currently handled in ratemaking—not assuming that IPL has a rate case each year to reconcile revenue requirements. Alternatively, IPL could model off system sales revenues assuming a future sharing provision (e.g. 50% to ratepayers and 50% to shareholders) rather than assuming 100% goes to ratepayers.	As stated at the stakeholder meeting, it is IPL's position that the PVRR modeling, which attributes the benefits of off-system sales to IPL customers, represents the appropriate treatment of off-system sales revenue. We do not believe the alternative methodologies suggested are appropriate for determining annual revenue requirements in IRP modeling.	10

	Other		
	Stakeholder Question or Comment	IPL's Response	l
	Please see the attached document for copies of Community Resolution documents passed by 52 organizations		
1	calling on Indianapolis Power & Light to include in its 20-year energy plan a commitment to stop burning coal in	We received and reviewed the document.	1
	Marion County by 2020.		1