RESPONSE COMMENTS OF
NORTHERN INDIANA PUBLIC SERVICE COMPANY
TO STAKEHOLDER COMMENTS ON
NIPSCO’S 2016 INTEGRATED RESOURCE PLAN

SUBMITTED: April 28, 2017

Introduction


NIPSCO appreciates the constructive feedback and observations that its customers and stakeholders (hereinafter “stakeholders”) provided in their comments to the Commission’s staff. Recognizing that the IRP process is a point-in-time forecast of the next 20 years, which is always evolving, NIPSCO is continuously looking for ways to improve the writing, organization and transparency of its IRP. NIPSCO will take all of the stakeholders’ comments and suggestions into account when preparing the next IRP and designing the stakeholder process.

There are also items included in the stakeholders’ comments to which NIPSCO respectfully disagrees and/or would like to provide clarification. The following response comments address stakeholder comments related to IRP modeling, IRP forecasting,
Demand Side Management (“DSM”) in modeling and forecasting, NIPSCO’s retirement analysis, NIPSCO’s preferred portfolio, and other comments.4

IRP Modeling

Based upon stakeholders’ comments, there were a certain number of areas of misunderstanding regarding NIPSCO’s modeling. For example, CAC generically states that the savings captured in the IRP are not consistent with the narrative, however, NIPSCO has not been able to identify any instances in which such inconsistencies exist. Similarly, CAC alleges that NIPSCO did not provide sufficient detail regarding the modeling structure used. NIPSCO provided a detailed discussion regarding the modeling structure used in the 2016 IRP in the narrative, and discussed the modeling structure during the stakeholder process. Having reviewed CAC’s comments, NIPSCO commits to increase clarity regarding its modeling efforts in future IRP submissions. To the extent that additional explanations around modeling are desired, NIPSCO is willing, as demonstrated during the 2016 IRP process, to provide modeling inputs and outputs to all stakeholders as well as have additional conversations to build understanding with its stakeholders. A lesson learned for future IRPs is that NIPSCO needs to provide additional discussion in the narrative to help clarify certain aspects of the modeling.

Demand-Side and Supply Side Resources on Equal Footing

CAC expresses concern that demand-side options were treated differently than supply-side options as to the screening process. This is not the case. NIPSCO’s modeling in the 2016 IRP places supply-side and demand-side resources on equal footing in the model selections. There was a screening process for supply-side resources and not all of the options made it into the optimization modeling process. Sargent & Lundy performed the screening process on supply-side resources in its engineering study as provided in the confidential IRP appendices. In a similar fashion to the demand-side screening process, Sargent & Lundy examined the technical aspects of supply-side alternatives including economic and feasibility limitations and screened out certain technologies.

The number of demand- and supply-side options resulted in a high number of modeling combinations for the optimization software to consider. Prescreening was necessary on both the demand- and supply-side to limit the number of combinations and ensure that the modeling software would be able to complete the runs. NIPSCO notes

4 In these response comments, NIPSCO focuses on providing clarifying input to the Commission’s staff on the various stakeholder comments on NIPSCO’s 2016 IRP. NIPSCO requests that its silence on any comment submitted by a stakeholder not be interpreted as NIPSCO’s agreement with the stakeholder’s position.
that many programs that passed the DSM pre-screening process were ultimately not selected in the model optimization process. Any DSM program that was unable or narrowly able to pass the benefit cost tests would be highly unlikely to be selected by the optimization model. While these facts were discussed in the IRP document and in the stakeholder process, NIPSCO recognizes that it could have expounded upon the methodology used in the 2016 IRP.

**Distributed Generation and Renewables**

CAC also expressed concern related to the availability of distributed generation and renewables, specifically that there were modeling errors and assumptions that created selection bias. Both distributed generation and renewables were available for the model to select on the same level as other resources. Distributed generation not owned by the utility is a resource that may not be consistently available. Renewables, not coupled battery storage, are often not available when the utility most needs the resource. NIPSCO did not include coupled renewables and energy storage as part of its modeling due to modeling complexity as well as the maturity and economics of the battery technologies. However, as NIPSCO’s modeling capabilities expand and energy storage matures, NIPSCO will evaluate inclusion in subsequent IRPs or requests for proposals (“RFPs”).

**Three Portfolios were Modeled**

It is important to note that NIPSCO considered three robust portfolios including a least cost optimization portfolio, a renewable-focused portfolio, and a low emissions portfolio within its capacity expansion modeling across all of its scenarios and sensitivities.\(^5\) Along with optimizing DSM for every scenario and sensitivity, steps were taken to ensure that renewable resources were selectable for all three portfolios.

**Carbon Scenarios**

ICC expressed concern with NIPSCO’s modeling related to the carbon scenarios. The carbon costs are applied to both coal and natural gas generating units according to their carbon dioxide (“CO₂”) emission rate profiles. Coal, gas, power and carbon prices, provided by PIRA, are correlated with no known inherent bias. ICC also expresses concern about NIPSCO’s use of a correlation between gas and coal prices, arguing that the norm is for “integrated” forecasts. It is appropriate to utilize a correlated forecast between gas and coal prices as these commodities are fundamentally linked. Gas and coal generation compete in regards to dispatch and are linked related to power

\(^5\) See Section 8.3.2 of the NIPSCO 2016 IRP at p. 131.
generation. However, NIPSCO does plan to explore more loosely correlated variables in future IRPs with the adoption of a model that is capable of stochastic modeling. Although NIPSCO did not use stochastic modeling in its 2016 IRP, the broad array of scenarios and sensitivities were sufficiently robust to draw appropriate conclusions. In addition, this approach was designed to ensure that NIPSCO captured an appropriate level of risk in its analysis.

**Aggressive Environmental Scenario**

CAC also expressed concern related to the Aggressive Environmental Scenario. Specifically, CAC questioned how the information was useful without a sensitivity showing a Renewable Portfolio Standard (“RPS”) modeled at base load and an RPS without a high carbon price. The Aggressive Environmental Regulation scenario is useful even without an RPS modeled at base load and an RPS modeled without a high carbon price since the IRP seeks to study a range of plausible worlds. The risks and uncertainties surrounding the RPS are captured within the two Aggressive Environmental Sensitivities. The scenarios and sensitivities seek to capture a range of possibilities as opposed to focusing on individual outcomes.

**Peak Energy Demand and Capacity Calculations**

CAC claims that NIPSCO incorrectly calculated the peak energy demand and capacity requirements. As NIPSCO and the other Indiana electric utilities have done in their IRPs, NIPSCO used NIPSCO’s Coincident Peak to calculate the load obligation in the 2016 IRP. In addition to this, NIPSCO chose to use the NIPSCO Coincident Peak in the 2016 IRP instead of the MISO Coincident Peak because of the unique industrial load within NIPSCO’s service territory. Because of the magnitude of the industrial load, NIPSCO determined that it was important to demonstrate that NIPSCO could meet its coincident peak independent of the MISO coincident peak. In future IRPs, NIPSCO is willing to consider the use of the MISO coincident peak so long as there is no negative impact on the ability to meet its own coincident peak.

**Constraint of Deferral Capacity**

CAC expresses concern that if the constraint of deferral capacity were not in place, it could be reasonably inferred that in at least some portfolio/scenario combinations, generation resources including renewables and additional efficiency measures, would be selected prior to 2023. CAC notes that the deferral capacity as utilized in the optimization analysis prevents any resources from being built until 2023 which in turn does not allow any renewables from taking advantage of tax credits. NIPSCO acknowledges these concerns and will consider renewable options prior to 2023 as it refines its plans.
Cost of New Entry

CAC claims that cost of new entry ("CONE") is not the correct cost with which to compare replacement capacity. They argue that the CONE is inflated in price relative to the PIRA capacity pricing which leads to an overvaluing of existing coal resources within the analysis. From NIPSCO’s perspective, retiring generation is a significant and generally, an irreversible decision. Therefore, NIPSCO takes a conservative assumption path to make retirement decisions. Selecting any capacity price as a proxy is subject to debate that our stakeholders will naturally navigate to a wide array of opposing positions. As such, NIPSCO elected to use the more conservative MISO CONE as a proxy because it provides a clear price for capacity in any market conditions, whether it is new capacity or purchased on the market. By definition, CONE is a price for capacity that could be built, while PIRA’s forecast evaluates supply and demand dynamics to estimate a market capacity price for any given year. Utilizing PIRA’s capacity price would imply reliance on a potentially volatile market for all future purchases. While NIPSCO intends to include some level of market capacity purchases in its future portfolio, it is unlikely that 100% of the replacement capacity needed to complete NIPSCO’s portfolio would rely on the market. Therefore, using CONE provides a proxy for new build and a conservative market purchase price whereas the PIRA pricing would have only provided market purchase pricing and therefore not appropriate since new, non-market procured capacity will likely provide some percentage of NIPSCO’s new resources.

IRP Forecasting

There were a variety of differences noted among the stakeholders regarding the way NIPSCO completed its forecasting. NIPSCO acknowledges that this is an area it could be more descriptive within the document. In addition, in future IRPs, NIPSCO will look to use more publicly available data to allow for all stakeholders to review information. Addressing ICC’s concerns, NIPSCO is responsible for the content and decisions of its IRP, even if a third party provides the fuel, or any of the other inputs. Similarly, third parties can maintain their independence with analysis performed at NIPSCO’s direction. PIRA’s reputation is based on providing forecasts it can defend and it is unlikely that it would compromise that reputation. Finally, the concepts of “future conditions,” “climatic conditions,” and “power prices” can come from a variety of sources with different assumptions and findings. This does not mean that the concepts are faulty or unreasonable as argued by some stakeholders.

Throughout the stakeholder process and in its comments, CAC has expressed concern about NIPSCO’s use of PIRA data and the Strategist modeling software. NIPSCO chose to use the PIRA data and the Strategist software because it determined those were
the reasonably accurate sources of information available for the 2016 IRP. Having gone through the 2016 study cycle and stakeholder process, NIPSCO agrees with the view that in the next IRP forecasting information needs to be available for stakeholder review to the maximum extent possible. That was not possible in 2016, due to the terms of the PIRA Energy Group License Agreement for Retainer Services. In an attempt to accommodate CAC and other stakeholders, NIPSCO requested permission from PIRA for a one time display of PIRA’s input assumptions, including its commodity price inputs. NIPSCO was able to reach a compromise to hold a web broadcast with PIRA for stakeholders that executed confidentiality agreements. So that this situation does not arise again, NIPSCO has already begun the search for a more publicly available source of data. In regard to CAC’s modeling concerns, NIPSCO is seeking to replace Strategist prior to the next IRP submission with a model that will allow more transparency, including transparent modeling methodologies.

Some stakeholders had specific concerns related to the forecasting of commodities. ICC expressed concern that the correlated price forecast leads to a hard-wired net present value revenue requirement (“NPVRR”). This is not the case. NIPSCO used PIRA pricing as received with the exception of adapting into typical week format as required by the optimization software. PIRA’s commodity pricing is based upon its proprietary models which calculate system-level commodity demand and is not biased towards any particular resource. In this manner, the commodity pricing is integrated, but also accounts for the correlations between commodities. ICC recommends that NIPSCO revise the IRP to reflect “appropriate” commodity price assumptions or “regulatory obligations.” However, NIPSCO has demonstrated in the IRP and these comments that it has provided appropriate assumptions for its commodity price and its forecasting is consistent with its regulatory obligations.

ICC argues that NIPSCO should have included in its forecast potential changes in coal prices. As discussed in the IRP and during the stakeholder process, NIPSCO looked at a wide range of future coal prices. Again, the IRP is a snapshot in time and NIPSCO works with what is known at the time. Ultimately, NIPSCO’s third party, independent forecast may have produced different results than ICC’s forecast, but that does not mean that NIPSCO’s coal pricing assumptions were unreasonable.

**Demand Side Management in Modeling and Forecasting**

Although approached differently than the CAC might have recommended, NIPSCO’s DSM modeling is nonetheless consistent with current practices regarding the screening of measures for DSM. NIPSCO made the conscious decision to screen for what was not just possible in its service territory, but also what was practical. While there may
be differences of opinion, the fact remains that, just like a supply-side resource, the ultimate determination of how much DSM is available is determined through an RFP. However, in order for the bundles to be the most accurate representation of what is available, NIPSCO elected to use the more conservative, but more typical market by also running the program potential on all of its measures before including them in the optimization. This took the measures one step beyond the achievable and determined the energy efficiency from the measure level within NIPSCO’s service territory. Using terminology from this would be similar to the “realistic achievable potential” used by other utilities, which considers the typical market and barriers. NIPSCO’s rationale for using this approach was that the DSM would be more likely to be realized. NIPSCO elected to then bundle similar measures together based on similar load shapes and customer segments.

To NIPSCO, this was more appropriate than the other approach of considering all possible DSM (although both ways are common in the industry), with the understanding that it would later fall out, either as part of the optimization process or when considered as part of its DSM planning process. Therefore, in preparing for the optimization process, using all possible DSM would be more liberal in allowing measures to be included in the bundles, applying the “maximum achievable potential,” which provides for the ideal market with the maximum target. The measures were then placed into bundles based on cost tiers so that cost-effective measures were not bundled with high-cost measures simply because they were of a similar nature (i.e., a low cost Residential Heating measure would not be placed with a higher cost Residential Heating measure simply because they were the same type of measure).

As an option for future submissions, NIPSCO could maintain its conservative process of determining the program potential, but bundle the measures by cost tier similar to how other utilities did in their IRPs. This bundling might allow the optimization process to select more DSM because there would not be low- and high-cost measures within the same bundle. The end result ultimately may be the same, but it could yield a different confidence level in the results. The key point, however, is that either approach is appropriate and accepted and used by experts throughout the country.

Even though NIPSCO agrees with the CAC that the issue of consistency can be made more meaningful by focusing on the value of energy efficiency, the plan must still focus on the amount of energy efficiency in the IRP in order to provide the Commission and other stakeholders with an amount for energy efficiency goals. Since the IRP is looking for resource options over a 20-year period, it is integral that NIPSCO provide the model with flexibility when selecting DSM. As stated earlier, DSM is an imperfect, best
guess view into the future, which occurs at a certain point in time with the inputs that are available at that point in time.

**NIPSCO’s Retirement Analysis**

The Industrial Group and ICC argued that NIPSCO was too aggressive in retiring the four units, while other stakeholders argued that NIPSCO should retire 100% of its coal fired generation almost immediately. NIPSCO endeavors to ensure that a reliable, compliant, flexible, diverse and affordable supply is available to meet customer needs, and its IRP demonstrates that it does just that. In the retirement analysis, the costs and benefits of continuing to operate the NIPSCO units, including the dispatch costs, recovery, maintenance, retrofitting and continuing to operate the affected units with the appropriate effluent limitation guidelines (“ELG”) and coal combustion residuals (“CCR”) compliance technologies were compared to costs and benefits of retiring and replacing the units with an alternative. The alternative, CONE, was used for retirement analysis only and was not NIPSCO’s selection, but intended to be a conservative proxy for what could be readily built or purchased in the market. This analysis was evaluated across the 15 scenarios and sensitivities discussed with all the stakeholders throughout NIPSCO’s 2016 IRP process.

While cost to customers is a key decision driver, the decision to retire the four units took into account a variety of factors in addition to customer economics, which caused it to be a “preferred” choice for customers from the Company’s standpoint. It is important to highlight that the model showed a lowest cost path of retiring 100% of coal which was not selected as the “preferred” path given these other factors.

Even with ICC’s comments regarding coal availability and pricing, the analysis would not change dramatically regarding the appropriateness to retire Units 7/8 and 17/18. There must be a balance among continued investment in operations and maintenance (“O&M”), maintenance capital, and maintaining the option to keep Units 17/18 open. However, key variables such as environmental regulations can change over time and therefore NIPSCO will evaluate the value of developing a compliance option at Units 17/18 as part of its next IRP. It is important to remember that fuel and technology diversity is important as over-reliance on a single fuel-source may leave a utility and its customers unnecessarily exposed to various operational and financial risks from fuel

---

6 NIPSCO’s response comments on CCR and ELG are intended to address how CCR and ELG were treated in the 2016 IRP. These response comments are not intended to address any issues in Cause No. 44872.
supply disruptions and/or price volatility. Fuel and technology was quantified by the capacity mix by the end of the planning period.

Despite claims to the contrary, NIPSCO considered long-term gas forecasts in its retirement modeling, but NIPSCO’s believes gas prices would need to rise dramatically and stay at a sustained high price to make it economical to continue to operate the units proposed for retirement. This, coupled with the correlated coal forecast, indicates that NIPSCO’s Retirement Analysis is appropriate.

Additionally, there were concerns that NIPSCO’s retirement path did not consider potential future changes to the ELG. NIPSCO believes that United States Environmental Protection Agency’s (“EPA’s”) ELG rule is consistent with the requirements under the Clean Water Act. The ELG rule is a final rule, and NIPSCO has a responsibility to include it in future resource planning. Although it is possible that there may be changes to the rule which could affect compliance requirements, any changes would be speculative at this time.\(^7\) If changes to the final ELG rule are propagated, NIPSCO will include and consider any changes in future resource planning.

Although the IRP is not required to consider factors such as whether or not NIPSCO attempted to sell units it is planning to retire, it does consider if the utility can meet its resource requirements. NIPSCO’s IRP meets that standard. In addition, NIPSCO has done an assessment of the market value of the retiring units, and contrary to the ICC’s assertions, NIPSCO has been willing to engage with parties interested in purchasing the retiring units.

**Employee and Community Analyses**

The argument was made that NIPSCO did not make its employment analysis available for public review. However, there may be confusion around the way that analysis was performed that was provided to the CAC through informal discovery. NIPSCO performed two impact analyses: impact on employees and impact on the surrounding communities. For the impact on employees, NIPSCO performed an assessment of potential employee disruption for each retirement combination considered in the IRP. Examples of employee disruptions considered include potential for staff reductions, employee turnover, union bumping and the miscellaneous costs associated with it.

---

\(^7\) NIPSCO recognizes that the U.S. EPA Administrator announced on April 17, 2017, that the EPA issued an administrative stay of outstanding compliance deadlines for ELG and was also petitioning the U.S. Court of Appeals for the 5th Circuit to hold litigation challenging the final ELG rule in abeyance until September 12, 2017. The 2016 IRP was a point-in-time forecast completed in November 2016. Any impacts from the EPA’s actions will be addressed in the next IRP.
with each of these activities. Based on this, retirement of Bailly (combinations 2 and 3) would affect approximately 115 employees; retirement of Bailly and Schahfer Units 17 and 18 (combination 4) would affect between 115 and 275 employees respectively; retirement of Bailly and Schahfer Station (combination 5) would affect 430 employees; and retirement of all coal units (combination 6) would affect 538 employees.

The second component of analysis evaluated the impact of retirement on surrounding communities and includes the potential disruption on the broader local economy through the loss of property taxes. The contribution of the coal units to local property taxes was made available to interested parties for review. Due to the number of variables (e.g., retirements, and relocations to other plants while maintaining current residences), NIPSCO has not performed an analysis on the potential impact of the lost NIPSCO jobs. This is something that NIPSCO intends to consider in its next IRP cycle.

**NIPSCO’s Preferred Portfolio**

A number of concerns were expressed regarding NIPSCO’s preferred portfolio. NIPSCO’s preferred portfolio plan was developed to ensure that a reliable, compliant, flexible, diverse and affordable supply was available to meet future customer needs. The plan was selected following feedback from stakeholders and the 2016 IRP optimization and retirement analysis. Specifically, the preferred retirement of 50% coal was included in the plan as a result of the retirement analysis discussed in the 2016 IRP, beginning on page 136. Combined cycle gas turbines (“CCGTs”), DSM and purchases were utilized in the preferred portfolio to meet NIPSCO’s load obligation. NIPSCO’s preferred plan was compared with the candidate portfolios for all 15 scenarios and sensitivities. This comparison indicated that the preferred portfolio was advantaged in regards to reliability, compliance, diversity and flexibility at a lower cost. This is illustrated in Figures 8-31, 8-32, and 8-33 of the 2016 IRP. Therefore, NIPSCO’s preferred portfolio is reasonable and appropriately selected.

CAC’s concern that none of the candidate portfolios are tested against a sufficiently wide range of potential futures is inaccurate. Each of the portfolios were tested against all 15 scenarios and sensitivities. NIPSCO should have made this clearer in the document.

Contrary to ICC’s statement, NIPSCO’s preferred portfolio has been tested against 15 scenarios and sensitivities in order to assess the plan’s response to a variety of risks. The preferred portfolio is the Company’s view of the future based on information available during the 2016 IRP. The short term plan includes purchases that provide the Company with the option to meet demand through the MISO market, which historically
has had excess capacity, or from purchase power agreements. This gives the Company
the flexibility to respond to any customer, technology or market changes quickly. It is
important to note that the 2023 CCGT is outside of the scope of the short term plan and
therefore is still being evaluated by the Company. NIPSCO intends to present an updated
plan in its next IRP.

**Net Present Value Revenue Requirement**

The Industrial Group expresses concern that the cost benefit analysis is largely
made in terms of the NPVRR rather than a “more concrete format.” It argues that the
NPVRR does a poor job of representing the actual costs the ratepayers. NIPSCO seeks to
at least meet the criteria as established by the IRP rule (170 IAC 4-7-1). This criteria
specifies that system level cost be considered as opposed to individual rate costs. It is
difficult to ascertain the costs to ratepayers and the NPVRR provides the best means to
assess the cost benefit analysis. The purpose of the IRP is to plan for the required
resources. The next step of the process, cost impacts, is better handled in individual
proceedings when appropriate customer class assumption can be used.

NIPSCO ranked portfolios by NPVRR in accordance with the IRP rule. The IRP is
intended to be used for long term planning and not a ratemaking mechanism. The full
scope of costs included in a rate case cannot be captured by the model to accurately reflect
future customer rate impacts. However, the change in NPVRR between portfolios
represents the direction and magnitude of an impact to customer rates. Therefore,
NIPSCO used the NPVRR as the main metric to rank the developed portfolios.

NIPSCO evaluated several supply-side and demand-side resources through the
IRP process. In addition to the previously discussed resources provided by Sargent &
Lundy, NIPSCO included combined heat and power (“CHP”) using the 2015 EPA catalog
of CHP technologies. Moreover, as described above, NIPSCO evaluated an extensive
number of demand-side options which were placed on equal footing. Therefore, NIPSCO
has included a “robust” pool of resources made available in each scenario/sensitivity.
However, many of these options were not selected resulting in the candidate portfolios
provided in NIPSCO’s 2016 IRP.

Finally, CAC recommends that NIPSCO present qualitative results side-by-side
for all portfolio and scenario combinations. NIPSCO commits to evaluate this suggestion
as it assembles its next IRP.
Other Comments

User Guide for Software

CAC stated in its comments that a user guide should be made available for software so stakeholders can have an understanding as to how a model works and how to interpret its input and output files. As was the case with Strategist, a user guide is not always available. In selecting software for future IRPs, NIPSCO will look for software that has a user guide.

Executive Summary

CAC comments that NIPSCO’s executive summary does not provide information on the relative costs of technologies considered, which would demonstrate that technologies such as coal and nuclear power are significantly more expensive than cleaner forms of energy. CAC also states that a clearer communication of core IRP concepts and results to nontechnical audiences would be greatly facilitated by a summary of key IRP findings in the executive summary and/or the beginning of the IRP. NIPSCO drafted the 2016 IRP’s executive summary to be just that: an executive summary. The details identified by CAC are contained in the body and attachments to the 2016 IRP. Having read CAC’s comments on the executive summary, NIPSCO will make further attempts to include more information for nontechnical stakeholder readers.

“Substantial Unexpected Event” has not occurred

ICC argues that NIPSCO should have redone the IRP after the “substantial unexpected event” of the presidential election. The “substantial unexpected event” is contained in the new draft rule. There isn’t any Commission precedent for NIPSCO to apply to determine whether a presidential election would qualify as a “substantial unexpected event.” Regardless, the election of President Trump is not a suitable application of that provision. An election, in and of itself, does not qualify as an unexpected event. NIPSCO asserts that a “substantial unexpected event” should be a utility related event such as a change in legislation that could materially change the course of a utility’s action plan that should be addressed prior to the subsequent IRP process. NIPSCO’s 2016 IRP is a snapshot from a specific point in time. To date, a “substantial unexpected event” has not occurred that would trigger NIPSCO redoing its 2016 IRP. Moreover, the scenarios in the 2016 IRP capture the reasonable possible outcomes of President Trump’s election.
Conclusion

NIPSCO hopes that the clarifications and response comments provided above help alleviate any concerns or confusion that the Commission’s staff and the stakeholders may have had about NIPSCO’s 2016 IRP. NIPSCO is always available to meet with the Commission staff and the Company’s stakeholders for further discussions of its IRP. NIPSCO appreciates the participation of its stakeholders, including the Commission staff, in its ongoing IRP public advisory process.