

## PUBLIC INTEREST CONSIDERATIONS

IPL's 2017 IRP presents a framework for IPL to evaluate potential future actions to provide reliable, reasonable-cost service with manageable risks for its customers. Development of the 2017 IRP considered cost, risk, uncertainty, supply reliability, and long-term public policy goals.

### 6.0 Overall Factors

A primary concern of IPL's Resource Plan is meeting the future energy needs of its customers. These needs are to be met cost-effectively, safely, reliably, responsibly, and efficiently. In addition, IPL regularly evaluates its resource needs and makes modifications to its resource plan to address evolving conditions and requirements. Numerous factors impact the decisions for which specific resources or combinations of resources are selected and these are discussed throughout prior sections of this report. The scenarios and sensitivities that were developed and a detailed discussion of each are given in Section 4.

#### 6.0.1 Reliably Meeting Customers' Needs

IPL is a participant in MISO and, as such, must meet the requirements of the Resource Adequacy (Module E) provisions of the MISO Tariff. Controls exist to ensure that each MISO participant provides their share of allocated reserves.

In general, IPL must provide sufficient capacity to serve its own load in addition to a reserve capacity obligation. Currently, IPL's system meets the MISO requirements, and calculations show that it will do so in the future with additional action taken generally in line with the Resource Plan. Under the 2017 IRP, IPL maintains the MISO minimum planning reserve margin of 7.8% above MISO coincident peak throughout the 20-year study period, ensuring reliable service. An important input to these reserve calculations is the system forecast, which projects the demand and energy for the future. The load forecast is reviewed at least annually to stay current with customers' needs. Section 2 provides a discussion of IPL's load forecast.

#### 6.0.2 Responsibly Meeting Customers' Needs

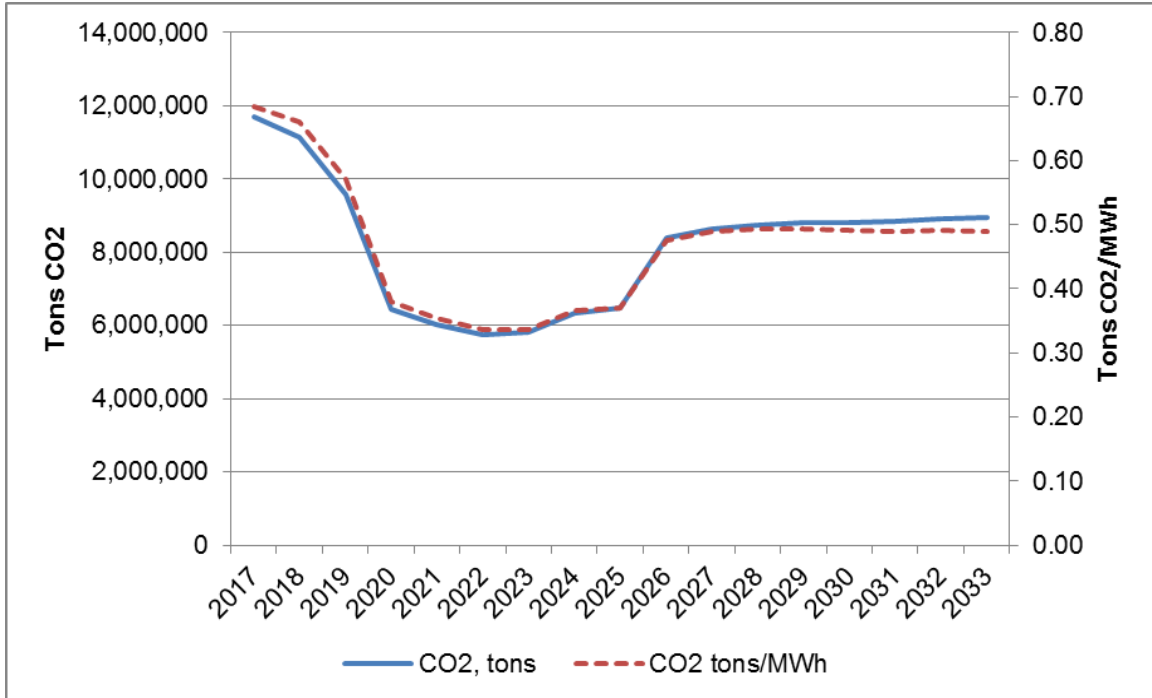
Generally, demand-side alternatives reduce emissions into the air, water and land by reducing fossil-fueled supply-side generation. IPL includes DSM throughout the 20-year study period in its proposed plan. Furthermore, renewable resources, such as wind and solar generation, also reduce emissions. IPL currently has both owned and purchased wind resources totaling approximately 550 MW of nameplate generation,<sup>1</sup> with 1,200 MW of new wind in its proposed plan.<sup>2</sup> As shown in the chart below, IPL's projected annual CO<sub>2</sub>

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<sup>1</sup> IPL's owned and purchased wind resources include 250 MW PPAs, 200 MW Whispering Willow Wind Farm, and 99 MW Franklin County Wind Farm.

<sup>2</sup> IPL's proposed wind additions include 500 MW New Wind I, 500 MW New Wind II, and 200 MW Turtle Creek PPA.

output (tons), in even its No Carbon Case (as a conservative look), notably declines over 15 years even as IPL’s energy demand grows. IPL’s projected CO<sub>2</sub> ton/MWh rate likewise declines over the study period. There is a projected step-change in 2026, which is the result of the modeling assumption that a nuclear PPA will expire at its current term.



**Figure 6.0.2.1 – No Carbon Case, CO<sub>2</sub> Emissions and Rate**

**6.0.3 Efficiently Meeting Customers’ Needs**

IPL develops resource plans based on minimizing the cumulative present worth of revenue requirements, given regulatory and other constraints, yielding a reasonable plan. Reasonable resource alternatives (demand-side and supply-side) are modeled, evaluated and optimized using EGEAS. This ensures a reasonable plan and, as a result, customers’ rates will be as low as practicable.

The EGEAS results indicate that IPL’s modeled supply-related EGEAS costs (such as fuel, existing unit variable operations and maintenance, new capital fixed charges, new unit fixed and variable operations and maintenance, and new unit tax credit benefits) per kWh will increase nominally over the 2017 to 2033 period at a compound average rate of about:

- 2.5 percent per year period for the No Carbon scenario; and
- 3.2 percent per year for the Wood Mackenzie 2027 Carbon scenario.

Assuming an inflation rate of approximately 2 percent per year over that same time period, the change in real terms is approximately:

- 0.5 percent per year for the No Carbon scenario, and,
- 1.1 percent per year for the Wood Mackenzie 2027 Carbon scenario.

As a reasonable cost electricity manufacturer, IPL will continue to provide reliable, responsible, and affordable electric energy to its customers.

#### 6.0.4 Flexibly Meeting Customers' Needs

The Action Plan in Section 5 shows that IPL is continually engaged in planning, and can reasonably respond to unanticipated events. The activities previously discussed, and their scheduling, permit the timely determination of possible changes to this Resource Plan. This flexibility promotes IPL's ability to meet its customers' needs with no unreasonable increase in costs due to unforeseen changes. The plan provides flexibility to accommodate unexpected changes in regulations, customer loads, costs, technology and other parameters.